mesencephalon

Partonomy list

FMA	TA	UID	Short official Latin term	Short English equivalent
61993		5261	mesencephalon	mesencephalon; midbrain
		8559	morphologia externa mesencephali	external morphology of mesencephalon
77488		5582	lamina quadrigeminalis (par); lamina tecti mesencephali (par)	quadrigeminal plate (pair); tectal plate (pair)
62403		5586	colliculus superior (par)	superior colliculus (pair)
62404		5585	colliculus inferior (par)	inferior colliculus (pair)
84359		5579	trigonum lemnisci lateralis (par)	trigone of lateral lemniscus (pair)
77801		5577	sulcus lateralis mesencephali (par)	lateral sulcus of mesencephalon (pair)
62394		5575↓	pedunculus cerebri (par); crus cerebrale (par)	cerebral peduncle (pair); cerebral limb (pair)
83792		5574	sulcus nervi oculomotorii (par)	oculomotor sulcus (pair)
83740		5572	fossa interpeduncularis	interpeduncular fossa
77523		5573	substantia perforata posterior	posterior perforated substance
		8558	morphologia interna mesencephali	internal morphology of mesencephalon
83902		5669	tectum mesencephali	tectum of mesencephalon
		9048	substantia grisea tecti mesencephali	grey substance of tectum of mesencephalon ▲
		8067	laminae colliculi superioris (par)	layers of superior colliculus (pair)
72406		5674	stratum zonale (par); lamina I colliculi superioris (par)	zonal layer (pair); layer I of superior colliculus (pair)
72407		5675	stratum griseum superficiale (par); lamina II colliculi superioris (par)	superficial grey layer (pair); layer II of superior colliculus (pair) ▲
71112		5676	stratum opticum (par); lamina III colliculi superioris (par)	optic layer (pair); layer III of superior colliculus (pair)
72409		5677	stratum griseum intermedium (par); lamina IV colliculi superioris (par)	intermediate grey layer (pair); layer IV of superior colliculus (pair) ▲
71113		5678	stratum medullare intermedium (par); lamina V colliculi superioris (par)	intermediate medullary layer (pair); layer V of superior colliculus (pair)
72410		5679	stratum griseum profundum (par); lamina VI colliculi superioris (par)	deep grey layer (pair); layer VI of superior colliculus (pair) ▲
72416		5680	stratum medullare profundum (par); lamina VII colliculi superioris (par)	deep medullary layer (pair); layer VII of superior colliculus (pair)
		5670	nuclei colliculi inferioris (par)	nuclei of inferior colliculus (pair)
72413		5671	nucleus centralis (par)	central nucleus (pair)
72412		5672↓	nucleus externus (par); cortex externus colliculi inferioris (par)	external nucleus (pair); external cortex of inferior colliculus (pair)
72411		5673↓	nucleus pericentralis (par); cortex dorsalis colliculi inferioris (par)	pericentral nucleus (pair); dorsal cortex of inferior colliculus (pair)
		8054	stratum I corticis dorsalis (par)	layer I of dorsal cortex (pair)
		8057	stratum II corticis dorsalis (par)	layer II of dorsal cortex (pair)
		8060	stratum III corticis dorsalis (par)	layer III of dorsal cortex (pair)
		8063	stratum IV corticis dorsalis (par)	layer IV of dorsal cortex (pair)
		9046	substantia alba tecti mesencephali	white matter of tectum of mesencephalon; white substance of tectum of mesencephalon
		8092	tractus commissurales tecti mesencephali (par)	commissural tracts of tectum of mesencephalon (pair)
71115		5681	commissura colliculi inferioris	commissure of inferior colliculus
72418		5682	commissura colliculi superioris	commissure of superior colliculus
		8096	tractus longi tecti mesencephali (par)	long tracts of tectum of mesencephalon (pair)

		8100	tractus ascendentes medullae spinalis (par)	ascending tracts of spinal cord (pair)
77766		12531	tractus anterolateralis; systema anterolateralе; lemniscus spinalis	anterolateral tract; anterolateral system; spinal lemniscus
		5328	fibrae spinotectales	spinotectal fibres ▲
		8104	tractus ascendentes trunci encephali (par)	ascending tracts of brain stem (pair)
72417		5584	brachium colliculi superioris	brachium of superior colliculus
71114		5583	brachium colliculi inferioris	brachium of inferior colliculus
72502		5468	lemniscus lateralis	lateral lemniscus
		8108	tractus descendentes tecti mesencephali (par)	descending tracts of tectum of mesencephalon (pair)
		8479	tractus tectobulbaris	tectobulbar tract
		7503	decussatio tegmentalis dorsalis; decussatio tegmentalis posterior	dorsal tegmental decussation; posterior tegmental decussation
		8480	tractus tectospinalis	tectospinal tract
		7479	structurae centrales mesencephali	central structures of mesencephalon
		7478	substantia grisea structurarum centralium mesencephali	grey matter of central structures of mesencephalon; grey substance of central structures of mesencephalon ▲
83134		5645	substantia grisea periaqueductalis; substantia grisea centralis	periaqueductal grey matter; central grey matter ▲
		6302	cellulae dopaminergicae periaqueductales (par); cellulae dopaminergicae A11 (par)	dopaminergic cells of periaqueductal grey matter (pair); dopaminergic cells A11 (pair) ▲
		7480	substantia alba structurarum centralium mesencephali	white matter of central structures of mesencephalon; white substance of central structures of mesencephalon
		8043	tractus longi structurarum centralium mesencephali (par)	long tracts of central structures of mesencephalon (pair)
		8047	tractus ascendentes medullae spinalis (par)	ascending tracts of spinal cord (pair)
77766		12531	tractus anterolateralis; systema anterolateralе; lemniscus spinalis	anterolateral tract; anterolateral system; spinal lemniscus
		5329	fibrae spinoperiaqueductales	spinoperiaqueductal fibres ▲
		8051	tractus descendentes structurarum centralium mesencephali (par)	descending tracts of central structures of mesencephalon (pair)
		8751	fasciculus longitudinalis posterior descendens; fasciculus longitudinalis dorsalis descendens	descending posterior longitudinal fasciculus; descending dorsal longitudinal fasciculus
62393		5578	tegmentum mesencephali	tegmentum of mesencephalon
83913		5625	substantia grisea tegmenti mesencephali	grey matter of tegmentum of mesencephalon ▲
		8564	nuclei somatosensorii tegmenti mesencephali (par)	somatosensory nuclei of tegmentum of mesencephalon (pair)
54568		5494	nucleus mesencephalicus nervi trigeminalis (par)	mesencephalic nucleus of trigeminal nerve (pair)
		8565	nucleus intercollicularis (par)	intercollicular nucleus (pair)
		8566	nuclei visuales tegmenti mesencephali (par)	visual nuclei of tegmentum of mesencephalon (pair)
		8567	nucleus terminalis lateralis (par)	lateral terminal nucleus (pair)
		9055	nuclei acustici tegmenti mesencephali (par); nuclei auditorii tegmenti mesencephali (par)	acoustic nuclei of tegmentum of mesencephalon (pair); auditory nuclei of tegmentum of mesencephalon (pair)
		9056	nucleus brachii colliculi inferioris (par)	nucleus of brachium of inferior colliculus (pair)
77492		5652	nucleus saguli (par)	sagulum nucleus (pair)
77494		5653	nucleus subbrachialis (par)	subbrachial nucleus (pair)
		8561	nuclei somatomotorii tegmenti mesencephali	somatomotor nuclei of tegmentum of

		(par)	mesencephalon (pair)
54510	5626	nucleus oculomotorius (par)	oculomotor nucleus (pair); nucleus of oculomotor nerve (pair)
	8562	nucleus caudalis centralis (par)	central caudal nucleus (pair)
	8563	nucleus interoculomotorius (par)	interoculomotor nucleus (pair)
	8568	nuclei visceromotorii tegmenti mesencephali (par)	visceromotor nuclei of tegmentum of mesencephalon (pair)
	5627	nuclei accessorii nervi oculomotorii (par)	accessory nuclei of oculomotor nerve (pair)
	8569	pars preganglionaris (par)	preganglionary part (pair)
	8570	pars nonganglionaris (par)	nonganglionary part (pair)
54524	5629	nucleus anteromedialis (par)	anterior medial nucleus (pair)
	5684	nuclei reticulares tegmenti mesencephali	reticular nuclei of tegmentum of mesencephalon
62402	5651	formatio reticularis mesencephali (par)	mesencephalic reticular formation (pair)
	8572	nucleus intracuneiformis (par)	intracuneiform nucleus (pair)
72427	5658	nucleus cuneiformis (par)	cuneiform nucleus (pair)
	8571	regio locomotoria mesencephalica (par)	mesencephalic locomotor region (pair)
	15263	nuclei neuromodulatorii tegmenti mesencephali (par)	neuromodulator nuclei of tegmentum of mesencephalon (pair)
	5663	nuclei raphes mesencephali (par); cellulae serotonergicae (par)	raphe nuclei of mesencephalon (pair); serotonergic cells (pair)
77502	5664	nucleus raphes linearis (par) ; cellula serotonergica B8 (par)	linear raphe nucleus (pair); serotonergic cells B8 (pair)
68462	5545	nucleus raphes dorsalis ; cellulae serotonergicae B7	dorsal raphe nucleus; serotonergic cells B7
	7445	nuclei dopaminergici (par)	dopaminergic nuclei (pair)
	14773	cellulae dopaminergicae areae tegmentalis ventralis (par); cellulae dopaminergicae A10 (par)	dopaminergic cells of ventral tegmental area (pair); dopaminergic cells A10 (pair)
	14753	cellulae dopaminergicae partis compactae substantiae nigrae (par); cellulae dopaminergicae A9 (par)	dopaminergic cells of compact part of substantia nigra (pair); dopaminergic cells A9 (pair)
	14752	cellulae dopaminergicae retrorubrales (par); cellulae dopaminergicae A8 (par)	retrorubral dopaminergic cells (pair) ; dopaminergic cells A8 (pair)
67947	5597	substantia nigra (par)	substantia nigra (pair)
62907	5598↓	pars compacta substantiae nigrae (par)	compact part of substantia nigra (pair)
	8578↓	pars dorsalis substantiae nigrae (par); pars posterior substantiae nigrae (par)	dorsal part of substantia nigra (pair) ; posterior part of substantia nigra (pair); dorsal tier of substantia nigra (pair)
	8579	subnucleus dorsolateralis (par); subnucleus posterolateralis (par)	dorsolateral subnucleus (pair); posterolateral subnucleus (pair)
	8580	subnucleus dorsomedialis (par); subnucleus posteromedialis (par)	dorsomedial subnucleus (pair); posteromedial subnucleus (pair)
	8581	pars ventralis substantiae nigrae (par) ; pars anterior substantiae nigrae (par)	ventral part of substantia nigra (pair); anterior part of substantia nigra (pair); ventral tier of substantia nigra (pair)
	8582	subnucleus ventrolateralis (par); subnucleus anterolateralis (par)	ventrolateral subnucleus (pair); anterolateral subnucleus (pair)
	8583	subnucleus ventrointermedius (par) ; subnucleus anterointermedius (par)	ventrointermediate subnucleus (pair); anterointermediate subnucleus (pair)
	8584	subnucleus ventromedialis (par); subnucleus anteromedialis (par)	ventromedial subnucleus (pair); anteromedial subnucleus (pair)
76844	5599	pars lateralis substantiae nigrae (par)	lateral part of substantia nigra (pair)
	8585	pars medialis substantiae nigrae (par)	medial part of substantia nigra (pair)

62908		5600	pars reticulata substantiae nigrae (par)	reticular part of substantia nigra (pair)
		12250	area tegmentalis ventralis (par); area tegmentalis anterior (par)	ventral tegmental area (pair); anterior tegmental area (pair)
		5654	nuclei tegmentales ventrales mesencephali (par); nuclei tegmentales anteriores mesencephali (par)	ventral tegmental nuclei of mesencephalon (pair); anterior tegmental nuclei of mesencephalon (pair)
		8586	nucleus linearis rostralis (par); nucleus linearis superior (par)	rostral linear nucleus (pair); superior linear nucleus (pair)
		8587	nucleus linearis caudalis (par); nucleus linearis inferior (par)	caudal linear nucleus (pair); inferior linear nucleus (pair)
77495		5655	nucleus interfascicularis (par)	interfascicular nucleus (pair)
77497		5657	nucleus paranigralis (par)	parablack nucleus (pair)
77496		5656	nucleus parabrachialis pigmentosus (par)	pigmented parabrachial nucleus (pair)
84341		5685	nucleus parapeduncularis (par)	parapeduncular nucleus (pair)
		8589	nuclei limbici tegmenti mesencephali (par)	limbic nuclei of tegmentum of mesencephalon (pair)
72437		5646	nucleus peripeduncularis (par)	peripeduncular nucleus (pair)
		8590	nuclei precerebellares tegmenti mesencephali (par)	precerebellar nuclei of tegmentum of mesencephalon (pair)
62407		5647	nucleus ruber (par)	red nucleus (pair)
72431		5648	pars magnocellularis (par)	magnocellular part (pair)
72430		5649	pars parvocellularis (par)	parvocellular part (pair)
77493		5650	pars posteromedialis (par); pars dorsomedialis (par)	posteromedial part (pair); dorsomedial part (pair)
83937		5602	substantia alba tegmenti mesencephali	white matter of tegmentum of mesencephalon; white substance of tegmentum of mesencephalon
		7464	radices centrales tegmenti mesencephali (par)	central roots of tegmentum of mesencephalon (pair)
72489		5464	tractus mesencephalicus nervi trigeminalis	mesencephalic tract of trigeminal nerve
		9066	tractus longi tegmenti mesencephali (par)	long tracts of tegmentum of mesencephalon (pair)
		9067	tractus ascendentes medullae spinalis (par)	ascending tracts of spinal cord (pair)
77766		12531	tractus anterolateralis; systema anterolateralе; lemniscus spinalis	anterolateral tract; anterolateral system; spinal lemniscus
		5327	fibrae spinomesencephalicae	spinomesencephalic fibres ▲
		7956	fibrae spinointercollicularis	spinointercollicular fibres ▲
		8594	tractus ascendentes trunci encephali (par)	ascending tracts of brain stem (pair)
		8485	fibrae nigrostriatales	nigrostriatal fibres ▲
72502		5468	lemniscus lateralis	lateral lemniscus
		7460↓	tractus vestibulomesencephalici	vestibulomesencephalic tracts
		8427	tractus vestibulomesencephalicus medialis	medial vestibulomesencephalic tract
		8428	tractus vestibulomesencephalicus lateralis	lateral vestibulomesencephalic tract
		8429	tractus vestibulomesencephalicus ventralis	ventral vestibulomesencephalic tract
		8430↓	tractus vestibulothalamicus	vestibulothalamic tract
83852		8426↓	tractus trigeminothalamici	trigeminothalamic tracts
		12170	tractus trigeminothalamicus lateralis	lateral trigeminothalamic tract
72500		5463	tractus trigeminothalamicus posterior; tractus trigeminothalamicus dorsalis	posterior trigeminothalamic tract; dorsal trigeminothalamic tract

		5462	tractus trigeminothalamicus anterior; tractus trigeminothalamicus ventralis; lemniscus trigeminalis	anterior trigeminothalamic tract; ventral trigeminothalamic tract; trigeminal lemniscus
		8603	tractus efferentes cerebelli (par)	efferent tracts of cerebellum (pair)
72495		5760	pedunculus cerebellaris superior	superior cerebellar peduncle
		12256	tractus afferentes telencephali (par)	afferent tracts of telencephalon (pair)
		8118	fibrae striatonigrales	striatonigral fibres ▲
		8122	fibrae pallidofugales	pallidofugal fibres ▲
		8605	tractus descendentes (par)	descending tracts (pair)
		8126	fibrae amygdalotegmentales	amygdalotegmental fibres ▲
77482		8415	tractus hypothalamospinalis	hypothalamospinal tract
		8481	tractus rubrospinalis	rubrospinal tract
72452		5623	decussatio tegmentalis ventralis; decussatio tegmentalis anterior	decussation of rubrospinal tract; anterior tegmental decussation; ventral tegmental decussation
		7930	fasciculus longitudinalis medialis	medial longitudinal fasciculus
		8494	tractus interstitiospinalis	interstitiospinal tract
		8490	tractus tegmentalis medialis	medial tegmental tract
		8491	tractus pretectoolivaris	pretectoolivary tract
		8492	tractus prerubroolivaris	prerubroolivary tract
83850		5476	tractus tegmentalis centralis	central tegmental tract
77050		5322	tractus rubroolivares	rubroolivary tracts
		8035	substantia alba pedunculi cerebri (par)	white matter of cerebral peduncle (pair); white substance of cerebral peduncle (pair)
72634		8526	tractus pyramidalis	pyramidal tract
		5624	fibrae corticomesencephalicae	corticomesencephalic fibres ▲
		9196	tractus corticorubralis	corticorubral tract ▲
		12543	tractus corticopontini	corticopontine tracts
75223		6243	tractus frontopontinus	frontopontine tract
		8533	tractus occipitoparietotemporopontinus	occipitoparietotemporopontine tract

161 lines

Scientific notes

UID	Libelle of note
5575	Traditionally, the Mesencephalon was subdivided into the Tectum (the Colliculi) and the Pedunculus (the Crus cerebri, the Substantia.VTA complex and the Tegmentum mesencephali). Here it is advocated to use the term Pedunculus only for what it actually is: a large bundle of fibres from the Telencephalon to the Brain stem and Spinal cord.
5598	The Pars compacta may be further subdivided into two parts or tiers, each with subnuclei (Braak H, Braak E 1986 Nuclear configuration and neuronal types of the nucleus niger in the brain of the human adult. Human Neurobiol 5:71-82; van Domburg PHMF, ten Donkelaar HJ 1991 The human substantia nigra and ventral tegmental area. Adv Anat Embryol Cell Biol 121:1-130); here, the subdivision by Halliday G, Reyes S, Double K (2012 Substantia nigra, ventral tegmental area and retrorubral fields. In: Mai JK, Paxinos G, eds: The Human Nervous System, 3rd ed. Elsevier, Amsterdam, pp 439-455) is used. The various subnuclei partly correspond to the subdivision into Nigrosomes and Matrix (Damier P, Hirsch EC, Agid Y, Graybiel AM 1999 The substantia nigra of the human brain. I. Nigrosomes and the nigral matrix, a compartmental organization based on calbindin D28k immunohistochemistry. Brain 122:1421-1436).
5672	The Nucleus externus is a laminar structure; in Amunts K, Morosan P, Hilbig H, Zilles K (2012 Auditory system. In: Mai JK, Paxinos G, eds: The Human Nervous System, 3rd ed. Elsevier, Amsterdam, pp 1270-1300) described as External cortex of Inferior colliculus (ECIC) to replace the TA term Nucleus lateralis. In TH, the Nucleus pericentralis is described as Dorsal cortex with Layers I-IV, based on: Geniec P, Morest DK (1971) The neuronal architecture of the human posterior colliculus; Acta Oto-Laryngol 295:(Suppl):1-33; supported by immunohistochemical data in rhesus monkeys by Amunts et al. (2012; their Dorsal cortex of inferior colliculus).
5673	See note # 5672
7460	The Tractus vestibulomesencephalici include (Büttner-Ennever JA, Gerrits NM 2004 Vestibular system. In: Paxinos G, Mai JK, eds. The Human Nervous System, 2nd ed. Elsevier, Amsterdam, pp 1213-1240): the Tractus vestibulomesencephalicus medialis, containing fibres from Vestibular nuclei to Oculomotor nuclei, passing via the MLF; the Tractus vestibulomesencephalicus lateralis, with fibres from the Lateral vestibular nucleus to Oculomotor nuclei, passing just lateral to the MLF (eponym: Ascending tract of Deiters; the Tractus vestibulomesencephalicus ventralis, with fibres from the Y group and the Superior vestibular nucleus crossing in the Ventral tegmentum either within or below the Brachium conjunctivum.
8426	(Tractus trigeminothalamici): The Tractus trigeminothalamicus anterior arises in the Spinal trigeminal nucleus and joins the Medial lemniscus, whereas the Tractus trigeminothalamicus lateralis arises in the Caudal part of the Spinal

	trigeminal nucleus and joins the Anterolateral tract.
8430	(Tractus vestibulothalamicus): In monkeys, Vestibulothalamic projections pass via both the FLM and the Ascending tract of Deiters (Lang W, Büttner-Ennever JA, Büttner U 1979 Vestibular projections to the monkey thalamus: An autoradiographic study. Brain Res 177:3-17). Zwergal et al. (2008) demonstrated a Vestibulothalamic tract adjacent to the Medial lemniscus in humans (Zwergal A, Büttner-Ennever JA, Brandt T, Strupp M 2008 An ipsilateral vestibulothalamic tract adjacent to the medial lemniscus in humans. Brain 131:2928-2935).
8578	The two 'Olfactory gyri' in TA suggested their presence as clearly identifiable structures; this is not true. These terms remained from the classic description of the Rhinencephalon (see Gastaut H, Lammers HJ 1961 Anatomie du rhinencéphale. Masson, Paris) and have been deleted. The Cortex piriformis or Cortex olfactorius primarius is the real Olfactory cortex, and can be divided into Frontal and Temporal parts (Allison AC 1954 The secondary olfactory areas in the human brain. J Anat (Lond) 88:481-488; Heimer L, de Olmos J, Alheid GF, et al. 1999 The human basal forebrain, Part 2. Handb Chem Neuroanat 15:57-226).

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