

diencephalon

PARTONYM LIST

FMA	TA	UID	Short official Latin term	Short English equivalent
62001		5263↓	diencephalon 	diencephalon 
		7511	morphologia externa diencephali	external morphology of diencephalon
62010		5775	prethalamus (par) 	prethalamus (pair) 
		9028	eminentia prethalamica (par) 	prethalamic eminence (pair) 
62080		5774	stria medullaris prethalamici  ; stria medullaris thalami 	stria medullaris of prethalamus; stria medullaris of thalamus 
62007		5769	thalamus (par) 	thalamus (pair) 
74867		5770	tuberculum anterius thalami (par) 	anterior thalamic tubercle (pair) 
62178		5772	pulvinar (par) 	pulvinar (pair) 
62023		5776	metathalamus (par) 	metathalamus (pair) 
62209		5777	corpus geniculatum laterale (par) 	lateral geniculate body (pair) 
62211		5778	corpus geniculatum mediale (par) 	medial geniculate body (pair) 
62009		5765	epithalamus 	epithalamus 
62032		5766	habenula (par) 	habenula (pair) 
62048		5792	commissura habenulae  	commissural commissure  
78466		5767	sulcus habenulae (par)  ; sulcus habenularis (par) 	sulcus of habenula (pair) 
74868		5768	trigonum habenulare (par)	habenular trigone (pair)
62033		3543	glandula pinealis  ; corpus pineale  	pineal gland  ; pineal body  
		9185	prepectum 	prepectum 
62072		5794	commissura posterior  	posterior commissure  
		7512	morphologia interna diencephali	internal morphology of diencephalon
83917		9033	substancia grisea prethalamici 	grey matter of prethalamus  ▲
62026		5849	nucleus reticularis prethalamici (par)  ; nucleus reticularis thalami (par) 	reticular nucleus of prethalamus (pair)  ; reticular nucleus of thalamus (pair) 
62215		5904	nucleus ventralis corporis geniculati lateralis (par)  ; nucleus pregeniculatus (par) 	ventral lateral geniculate nucleus (pair); pregeniculate nucleus (pair) 
		5894	nuclei campi perizonialis (par) 	nuclei of perizonal field (pair) 
62037		5895	nucleus campi medialis (par) 	nucleus of medial field (pair)  ; H field (pair)
77526		5896	nucleus campi dorsalis (par) 	nucleus of dorsal field (pair)  ; H1 field (pair)
		5897	nucleus campi ventralis (par) 	nucleus of ventral field (pair)  ; H2 field (pair)
62038		5898	zona incerta (par) 	zona incerta (pair)
		6304	cellulae dopaminergicae zonae incerti (par)  ; cellulae dopaminergicae A13 (par) 	dopaminergic cells of zona incerta (pair)  ; dopaminergic cells A13 (pair) 
83914		5813↓	substancia grisea thalami (par) 	grey matter of thalamus (pair)  ▲
		5814	nuclei anteriores thalami (par)  ; regio anterior thalami (par)	anterior nuclei of thalamus (pair)  ; anterior region of thalamus (pair)
62141		5815	nucleus anterodorsalis (par) 	anterodorsal nucleus (pair) 
62142		5816	nucleus anteromedialis (par) 	anteromedial nucleus (pair) 
62143		5817	nucleus anteroventralis (par) 	anteroventral nucleus (pair) 
62176		5819	nucleus dorsalis lateralis (par) 	dorsal superficial nucleus (pair); laterodorsal nucleus (pair); lateral dorsal nucleus (pair)
		5832	nuclei mediales thalami (par)  ; regio medialis thalami (par)	medial nuclei of thalamus (pair)  ; medial region of thalamus (pair)
62156		5833	nucleus mediodorsalis (par) 	mediodorsal nucleus (pair) 
				parvocellular nucleus (pair); lateral

62162		5834	pars parvocellularis (par) ; nucleus lateralis (par)
62161		5835	pars magnocellularis (par) ; nucleus medialis (par)
62160		5836	pars paralaminaris (par)
		5826	nuclei intralaminares thalami (par)
		8628	nuclei intralaminares anteriores (par)
62171		5828	nucleus centralis medialis (par)
62172		5830	nucleus paracentralis (par)
62170		5827	nucleus centralis lateralis (par)
		12224	nucleus cucullaris (par)
		8629	nuclei intralaminares centrales (par)
62165		5829	nucleus centromedianus (par)
62166		5831	nucleus parafascicularis (par)
		8630	nucleus subparafascicularis (par)
		8631	nuclei intralaminares posteriores (par)
62220		5846	nucleus limitans (par)
62222		5848	nucleus suprageniculatus (par)
		5850	nuclei laterales thalami (par) ; regio ventralis thalami (par)
62184		5863	nucleus ventralis anterior (par)
		5864	pars magnocellularis (par)
		5865	pars principalis (par)
		5860	nuclei ventrales laterales (par)
		5861	nucleus ventrolateralis anterior (par)
		5862	nucleus ventrolateralis posterior (par)
		5855	nuclei ventrales mediales (par)
		5856	nucleus ventromedialis basalis (par)
		5857	nucleus ventromedialis principalis (par)
		5858	nucleus submedialis (par)
		8632↓	nucleus ventromedialis posterior (par)
		5851	nuclei ventrobasales (par)
84350		5852	nucleus ventralis posterolateralis (par)
		9026	pars anterior (par)
		9029	pars posterior (par)
62202		5853	nucleus ventralis posteromedialis (par)
62207		5854	pars parvocellularis (par)
62199		5859	nucleus ventralis posteroinferior (par)
		5838	nuclei periventriculares thalami (par)
62151		5839	nucleus parataenialis (par)
62152		5840	nucleus paraventricularis thalami (par)
62153		5843	nucleus medioventralis (par) ; nucleus reunions (par)
		5845	nuclei posteriores thalami (par) ; regio posterior thalami (par)
62177		5820	nucleus lateralis posterior (par)
		5821	nuclei pulvinares (par)
62180		5822	nucleus pulvinaris anterior (par)
62183		5823	nucleus pulvinaris inferior (par)
62181		5824	nucleus pulvinaris lateralis (par)
62182		5825	nucleus pulvinaris medialis (par)
			corpora geniculata (par) ; nuclei geniculati

	7521	thalami (par) (II); regio geniculata (par); metathalamus (par)	(pair) (II); geniculate region (pair); metathalamus (pair)
	12225	corpus geniculatum laterale (par) (II)	lateral geniculate body (pair) (II)
62214	5900	nucleus dorsalis corporis geniculati lateralis (par) (II)	dorsal lateral geniculate nucleus (pair)
76988	5901	strata koniocellularia (par) (II)	koniocellular layers (pair) (II)
	5902	strata magnocellularia (par) (II)	magnocellular layers (pair) (II)
	5903	strata parvocellularia (par) (II)	parvocellular layers (pair) (II)
	12226	corpus geniculatum mediale (par) (II)	medial geniculate body (pair) (II)
	5906	nuclei corporis geniculati medialis (par) (II)	nuclei of medial geniculate body (pair) (II)
62217	5907	nucleus ventralis (par) (II)	ventral principal nucleus (pair)
62216	5908	nucleus dorsalis (par) (II)	dorsal nucleus (pair) (II)
62218	5909	nucleus magnocellularis medialis (par) (II)	medial magnocellular nucleus (pair) (II)
83932	5870	substancia alba thalami (par) (II)	white matter of thalamus (pair) (II)
	9024	radices centrales thalami (par) (II)	central roots of thalamus (pair) (II)
62046	5782	tractus opticus (II) (O)	optic tract (II) (O)
	8292	tractus proprii thalami (par) (O)	intrinsic tracts of thalamus (pair) (II)
62469	5871	lamina medullaris lateralis (II) (O)	external medullary lamina (O)
62470	5872	lamina medullaris medialis (II) (O)	internal medullary lamina (O)
	5880	fibrae intrathalamicae (II) (O)	intrathalamic fibres (II) (A) (O)
	5885	fibrae periventriculares thalami (II) (O)	periventricular fibres of thalamus (II) (A) (O)
	8307	tractus longi thalami (par) (II)	long tracts of thalamus (pair) (II)
	8311	tractus ascendentes medullae spinalis (par) (II)	ascending spinal tracts (pair)
77766	12531	tractus anterolateralis (II); sistema anterolaterale (II); lemniscus spinalis (II) (O)	anterolateral tract (II); anterolateral system (II); spinal lemniscus (II) (O)
	8318	fibrae spinothalamicae (II) (O)	spinothalamic fibres (II) (A) (O)
	7958	tractus cervicothalamicus (II) (O)	cervicothalamic tract (II) (O)
	8633	tractus ascendentes trunci encephali (par) (II)	ascending brain stem tracts (pair)
83675	5298	lemniscus medialis (II) (O)	medial lemniscus (II) (O)
83852	8426↓	tractus trigeminothalamic (II) (O)	trigeminothalamic tracts (II) (O)
	12170	tractus trigeminothalamicus lateralis (II) (O)	lateral trigeminothalamic tract (II) (O)
	5462	tractus trigeminothalamicus anterior (II); tractus trigeminothalamicus ventralis (II); lemniscus trigeminalis (O)	anterior trigeminothalamic tract (II); ventral trigeminothalamic tract (II); trigeminal lemniscus (O)
72500	5463	tractus trigeminothalamicus posterior (II); tractus trigeminothalamicus dorsalis (II) (O)	posterior trigeminothalamic tract (II); dorsal trigeminothalamic tract (II) (O)
	8430↓	tractus vestibulothalamicus (II) (O)	vestibulothalamic tract (II) (O)
71114	5583	brachium colliculi inferioris (II) (O)	brachium of inferior colliculus (II) (O)
72417	5584	brachium colliculi superioris (II) (O)	brachium of superior colliculus (II) (O)
72495	5760	pedunculus cerebellaris superior (O)	superior cerebellar peduncle (O)
	8634	tractus efferentes telencephali (par) (II)	efferent telencephalic tracts (pair)
	8525	fibrae corticothalamicæ (II) (O)	corticothalamic fibres (II) (A) (O)
62070	5874	ansa lenticularis (II) (O)	ansa lenticularis (O)
61976	5875	fasciculus lenticularis (II) (O)	lenticular fasciculus (II) (O)
62065	5890	fasciculus thalamicus (II) (O)	thalamic fasciculus (II) (O)
	8654	fasciculus mammillothalamicus (II) (O)	mammillothalamic fasciculus (II); mammillothalamic tract (A) (O)
	8635	tractus efferentes thalami (par) (II); radiationes thalamicæ (par) (II)	efferent tracts of thalamus (pair) (II); thalamic radiations (pair) (II)
76976	5877	radiatio thalamica anterior (II); radiatio anterior thalami (II) (O)	anterior thalamic radiation (II) (O)
	8498		

			fibrae thalamofrontales
76978		5878	radiatio thalamica centralis (II); radiatio centralis thalami
		7574	fibrae thalamoparietales
76980		5879	radiatio thalamica inferior (II); radiatio inferior thalami
		5876	fibrae thalamotemporales
62071		7618	ansa peduncularis
		8500	radiatio acustica
76982		5886	radiatio thalamica posterior (II); radiatio posterior thalami
61941		5884	radiatio optica (II)
		7923	fasciculus anterior (II)
		7924	fasciculus centralis (II)
		7925	fasciculus dorsalis (II)
		9184	substancia grisea epithalami (II)
62372		5803	nucleus habenularis lateralis (par) (II)
62373		5804	nucleus habenularis medialis (par) (II)
		6321	cellulae cholinergicae epithalami (II); cellulae cholinergicae Ch7 (II)
		9104	substancia alba epithalami (II)
		8637	tractus commissurales epithalami (II)
62048		5792	commissura habenulae
		8638	tractus longi epithalami (II)
		8639	tractus efferentes epithalami (II)
		5802	tractus habenulointerpeduncularis (II); fasciculus retroflexus (II)
		8640	substancia grisea pretecti (II)
62402		5805	area pretectalis (par) (II)
272352		5806	nuclei pretectales (par) (II)
		5807	nucleus pretectalis anterior (par) (II)
72403		5808	nucleus tractus optici (par) (II)
72405		5809	nucleus pretectalis olivaris (par) (II)
84355		5810	nucleus pretectalis posterior (par) (II)
68463		8641↓	nucleus commissurae posterioris (par) (II)
		8642	pars principalis (par) (II)
		8643	pars magnocellularis (par) (II)
256154		5638	nuclei accessorii tractus optici (par) (II)
77651		5639	nucleus accessorius posterior tractus optici (par) (II); nucleus accessorius dorsalis tractus optici (par) (II)
77652		5640	nucleus accessorius lateralis tractus optici (par) (II)
77653		5641	nucleus accessorius medialis tractus optici (par) (II)
		8644	substancia alba pretecti (II)
		8645	tractus commissurales pretecti (par) (II)
62072		5794	commissura posterior (II)
		8647	tractus longi pretecti (par) (II)
		8648	tractus descendentes pretecti (par) (II)
		8490	tractus tegmentalis medialis (II)
		8491	tractus pretecoolivaris (II)
		8622↓	tegmentum prerubrale (II); tegmentum diencephali (II)

- thalamofrontal fibres ▲
- central thalamic radiation (II) 
- thalamoparietal fibres (II) ▲ 
- inferior thalamic radiation (II) 
- thalamotemporal fibres (II) ▲ 
- ansa peduncularis 
- acoustic radiation (II) 
- posterior thalamic radiation (II) 
- optic radiation (II) ▲ 
- anterior bundle 
- central bundle 
- dorsal bundle 
- grey matter of epithalamus (II) ▲
- lateral habenular nucleus (pair) (II)
- medial habenular nucleus (pair) (II)
- cholinergic cells of epithalamus (II); cholinergic cells Ch7 (II)
- white matter of epithalamus (II)
- commissural tracts of epithalamus (II)
- habenular commissure (II) 
- long tracts of epithalamus (II)
- epithalamic efferent tracts
 - habenulointerpeduncular tract (II); fasciculus retroflexus 
- grey matter of pretectum (II) ▲
- pretectal area (pair) (II)
- pretectal nuclei (pair) (II)
 - anterior pretectal nucleus (pair) (II)
 - nucleus of optic tract (pair) (II)
 - olivary pretectal nucleus (pair) (II)
 - posterior pretectal nucleus (pair) (II)
- nucleus of posterior commissure (pair) (II)
 - principal part (pair) (II)
 - magnocellular part (pair) (II)
- accessory nuclei of optic tract (pair) (II)
 - posterior accessory nucleus of optic tract (pair) (II); dorsal accessory nucleus of optic tract (pair) (II)
 - lateral accessory nucleus of optic tract (pair) (II)
 - medial accessory nucleus of optic tract (pair) (II)
- white matter of pretectum (II)
- commissural tracts of pretectum (pair) (II)
- posterior commissure (II) 
- long tracts of pretectum (pair) (II)
- descending tracts of pretectum (pair) (II)
 - medial tegmental tract (II) 
 - pretectoolivary tract (II) 
- prerubral tegmentum (II); diencephalic tegmentum
- grey matter of prerubral tegmentum of

	8650	substantia grisea tegmenti prerubralis	
	8144	nucleus interstitialis (par)	
	8147↓	nucleus interstitialis rostralis fasciculi longitudinalis medialis (par)	
	8150↓	nucleus ellipticus (par)	
62035	5893	nucleus subthalamicus (par)	
	8651	substantia alba tegmenti prerubralis	white matter of prerubral tegmentum of diencephalon
	8652	tractus longi tegmenti prerubralis	long tracts of prerubral tegmentum of diencephalon
	8653	tractus efferentes prerubrales	prerubral efferent tracts
	8490	tractus tegmental is medialis	medial tegmental tract
	8492	tractus prerubroolivaris	prerubroolivary tract
	8495	fasciculus longitudinalis medialis descendens	descending medial longitudinal fasciculus
	8494	tractus interstitiospinalis	interstitiospinal tract
	181 lines		

SCIENTIFIC NOTES

UID Libelle of note

The Diencephalon in its classic, columnar view was divided into four dorsoventrally arranged columns separated by ventricular sulci: the Epithalamus, the Dorsal thalamus, the Ventral thalamus and the Hypothalamus. Extensive embryological studies made it clear that the thalamic 'columns' are derived from transversely oriented zones, the Prosomeres (see TE). Currently, the (Caudal) Diencephalon is subdivided into three segmental units, which from caudal to rostral, contain in their alar domains the Prepectum (prosomere 1 or P1), the Epithalamus and the Thalamus (P2) and the Ventral thalamus or Prethalamus (P3). The diencephalic basal plate contains the rostral part of the Substantia nigra-VTA complex and some other nuclei, collectively forming the Diencephalic or Prerubral tegmentum between the Mesencephalon and the Hypothalamus. The entire Hypothalamus or Rostral diencephalon arises from the alar and basal components of the secondary prosencephalon. The Preoptic area is one of the subpallial developmental domains (Puelles L, Harrison M, Paxinos G, Watson C 2013 A developmental ontology for the mammalian brain based on the prosomeric model. Trends Neurosci 36:570-578).

For the Thalamic nuclei, a new subdivision based on Hirai T, Jones EG (1989 A new parcellation of the human thalamus on the basis of histochemical staining. Brain Res Rev 14:1-34) and updated by Morel A, Magnin M, Jeanmonod D (1997 Multiarchitectonic and stereotactic atlas of the human thalamus. J Comp Neurol 387:618-677) is used to replace the list of terms in TA (14.1.08.603-14.1.08.658), largely a matter of a more practical grouping of nuclei. As Latin synonym the term Regio is adopted from Percheron G (2004 Thalamus. In: Paxinos G, Mai JK, eds: The Human Nervous System, 2nd ed. Elsevier, Amsterdam, pp 592-675).

New term, described by Horn, AKE, Büttner-Ennever, JA (1998 Premotor neurons for vertical eye-movements in the rostral mesencephalon of monkey and man: The histological identification by parvalbumin immunostaining. J Comp Neurol 392:413-427) as a premotor nucleus for vertical eye movements.

8150 See note # 8641

(Tractus trigeminothalamicus): 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.

(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).

8622 The basal parts of the prosomeres P1-P3 form several nuclei, previously included in the Mesencephalon (see General footnote). The rostral parts of the Substantia nigra/VTA-complex also derive from P1-P3. The term Tegmentum prerubrale is preferred as topographic term over Tegmentum diencephali.

8632 The Nucleus ventromedialis posterior (Ventromedial posterior nucleus; VMpo) is a newly discovered nucleus involved in pain perception as part of the Ventromedial nucleus (Blomqvist A, Zhang ET, Craig AD 2000 Cytoarchitectonic and immunohistochemical characterization of a specific pain and temperature relay, the posterior portion of the ventral medial nucleus, in the human thalamus. Brain 123:601-619).

8641 Replaced from Mesencephalon; for the subdivision of this nucleus, Principal and Magnocellular parts are adopted, following Olszewski and Baxter3. The Ventral division is renamed as Nucleus ellipticus (coming from Cetacea and Proboscidea) or Nucleus of Darkschewitsch, not part of the Nucleus of the posterior commissure.