

Glial Lineage Markers

Specificity	Human Antibodies	Mouse Antibodies	Rat Antibodies
NSC markers			
AGGRECAN	0195-8050, MCA1451, MCA1452, MCA1453, MCA1454		
BMP-2	AHP960*, 1406-0610		
CaMKII	AHP1273, AHP893*, AHP894*	AHP1273, AHP893*, AHP894*	AHP1273, AHP893*, AHP894*
CD24	MCA1379*	MCA1389S, MCA2291*	
CD29	MCA2028, MCA1949*, MCA1189, MCA1188	MCA2298*	MCA2298*
CD49d	MCA923*, AHP1225, MCA2503*, MCA697, MCA3208	MCA1230G*, MCA2082*, MCA2294*	MCA697, MCA1383
CD71	MCA2776, MCA2775, MCA4173, MCA1148	MCA2474EL*, MCA2396*, MCA1033G*	MCA155G*
CNTF	AHP1277*		AAR21*
CYSTATIN C	MCA2675, MCA2676, MCA2639	AAM58	
FGF BASIC	MCA1400G, 4460-0104, AHP1038*, AHP830, 4460-4017		
FIBRONECTIN	4470-2189, 4470-2750, AHP08, 4470-2304*	4470-4339	AHP08
NESTIN	OBT1611, OBT1610	6625-1010	6625-1010
NOTCH 1	MCA2410	OBT2045, MCA2410	OBT2045
NOTCH 2	AHP1290, AHP1289	AHP1290, AHP1289	AHP1290, AHP1289
SLUG	AHP1186, MCA3456	AHP1186	
VIMENTIN	HCA032, MCA862, OBT3104, 9550-0384		MCA862, 9550-0384
Astrocytic markers			
ABCA7		MCA2683*	
CaMKII	AHP1273, AHP893*, AHP894*	AHP1273, AHP893*, AHP894*	AHP1273, AHP893*, AHP894*
GFAP	4650-0204, MCA2304, 4650-0309, AHP1468, MCA3140	4650-0204, MCA2304, AHP148	4650-0204, AHP1468, MCA3140
S100	AHP385, MCA2770, MCA2769, MCA2772	AHP385	AHP385
SURVIVIN (aa1-12)	AHP571, AHP576	AHP604	
Oligodendrocytic markers			
CD44	MCA2726, MCA2504*, MCA89*	MCA1014G*, MCA1231	MCA930R*, MCA643GA*
GALACTOCEREBROSIDE	4600-0004	4600-0004	4600-0004
MBP	0300-0082, MCA184S, MCA70, MCA408S, MCA685S, MCA409S, MCA686S, MCA1577*, 6420-2704	MCA408S, MCA409S	0300-0082, MCA184S, MCA70, MCA409S, MCA686S
MYELIN	6418-0504, 6418-0606	6418-0606	6418-0606
OLIGODENDROCYTE	MCA1945	MCA1945	MCA1945
PDGF RECEPTOR	0100-0220, 7460-3104, AHP1326, MCA3331		OBT1137
PLP	6420-5107, MCA839G		
Axonal markers			
COFILIN 2	AHP1061, MCA4003	AHP1061	AHP1061
DYNEIN CYTOPLASMIC 74kDa		0100-0076	0100-0076
KINESIN FAMILY MEMBER 5C		HCA010	
KINESIN HEAVY CHAIN	OBT1670, AHP1395	OBT1670	OBT1670
KINESIN LIGHT CHAIN	OBT1671	OBT1671	OBT1671
MAP + TAU	6242-0206		
NEUROFILAMENT	MCA2148		
NEUROFILAMENT 68 kDa	6670-0950	6670-0950	6670-0950
NEUROFILAMENT L 70 kDa	AHP286	AHP286	AHP286
NEUROFILAMENT M 145 kDa	0100-0326	0100-0326	0100-0326
NEUROFILAMENT M 150 kDa	AHP246		AHP246
NEUROFILAMENT 160 kDa	OBT1654		
NEUROFILAMENT H 200 kDa	MCA1321	MCA1321	AHP245, MCA1321
OREXIN RECEPTOR-1/2	7049-5420	7049-5420	7049-5420
TAU (aa1-16)	AHP738		
TUBULIN	9280-0050G, 9280-0004, OBT1660	9280-0050G, 9280-0004, OBT1660	9280-0050G, 9280-0004, OBT1660
TUBULIN ALPHA	9280-0715, MCA77G, MCA78G	9280-0715, MCA77G, MCA78G	MCA77G, MCA78G
TUBULIN BETA	MCA2703, MCA4184, MCA4593	MCA2703, MCA4184	MCA4184
TUBULIN DELTA 2	OBT1661		
TUBULIN III (BETA)	MCA2047	MCA2047	MCA2047
Dendritic markers			
DOPAMINE RECEPTOR D2 & D3	3940-1007	3940-1007	
GAD 65/67	0100-0698, 0100-0697, AHP360		
MAP-1	AHP997	AHP997	
Microglial markers			
CD11b	MCA551*	MCA711*, MCA74G*	MCA618R, MCA619*, MCA275G*, MCA2220*
CD45	MCA4621GA, MCA1921, MCA87*, MCA1719C, 5642-0304, MCA345G	MCA1388, MCA1031G*	MCA43G*, MCA589R
CD68	MCA1815, MCA2375F, 5870-2008	MCA1957*	MCA341GA*
F4/80 ANTIGEN		MCA497G*	

* Multiple formats available
Phospho-specific antibody

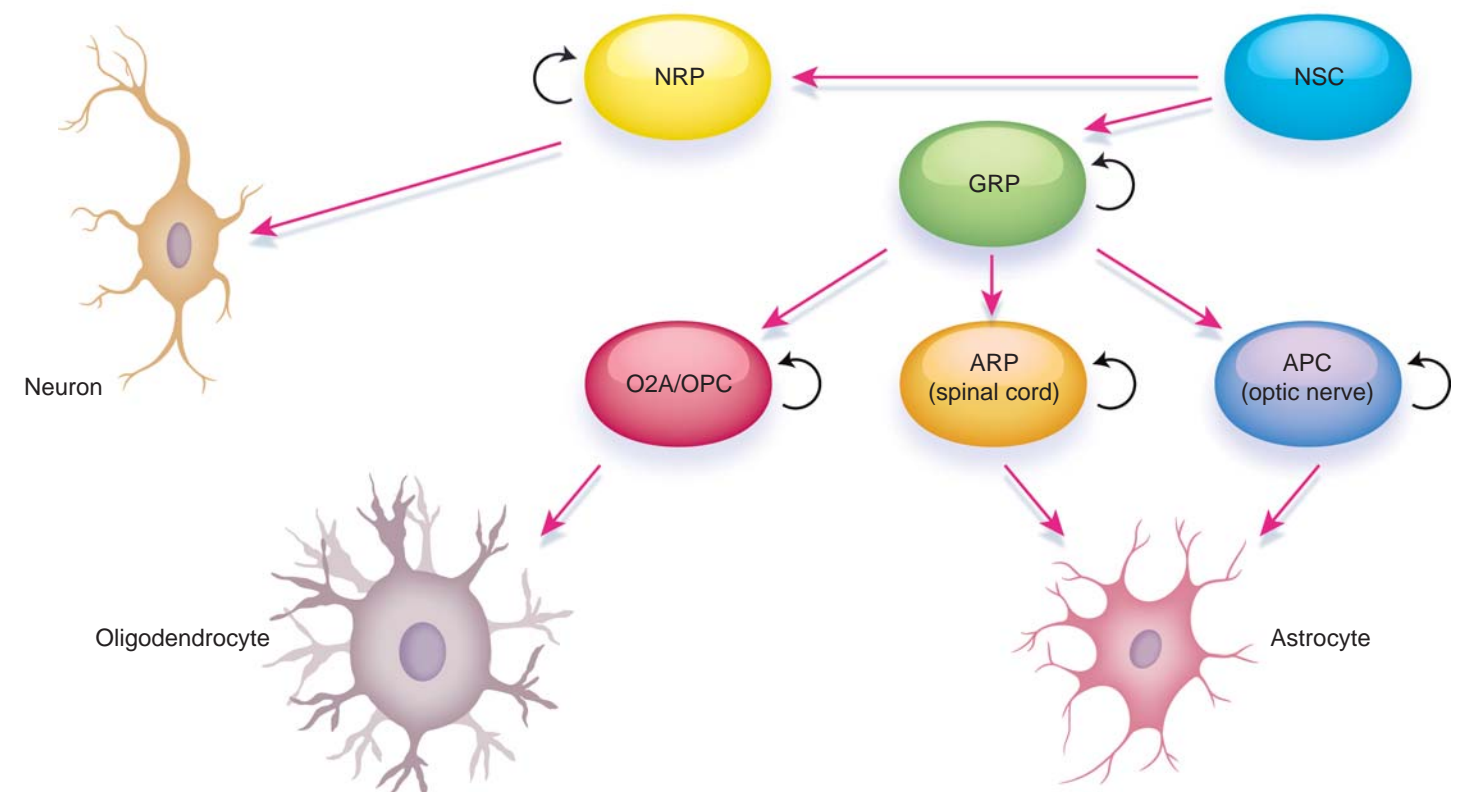
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Glial cells (also known as neuroglia) support neurons in the central nervous system (CNS). They do not carry nerve impulses but help modulate neurotransmission, as well as providing insulation, nutrition and support. Microglial cells, astrocytes and oligodendrocytes are all types of glial cell. With the exception of microglia, glial cells are derived from ectodermal tissue in the developing embryo.

Astrocytes are involved in the physical structure of the brain and provide neurons with essential nutrients. They originate from neural stem cells (NSCs) that differentiate into glial-restricted precursors (GRPs). GRPs may then develop into astrocyte precursor cells (APCs) from which astrocytes derive.

Oligodendrocytes, in the form of myelin sheaths, provide insulation for axons in the CNS and aid the conduction of electrical signals. Oligodendrocytes arise from oligodendrocyte precursor cells (OPCs).

Neurons are the backbone of the CNS and also originate from NSCs. They are electrically excitable cells which transmit information to the brain.



Microglial cells are the first and main form of immune defense in the CNS. They act during neuroinflammation by stimulating the release of proinflammatory cytokines and chemokines. Unlike other glial cells, microglial cells originate from hemopoietic stem cells in the bone marrow and constantly migrate around the nervous system looking for neural damage.

