

Mouse Anti-OLIG2 [MD66]: MC0376, MC0376RTU7

Intended Use: For Research Use Only

Description: Oligodendrocyte transcription factor 2 (OLIG2) is a transcription factor with basic helix-loop-helix (bHLH) domains that have fundamental roles in neuronal and glial production. It is required for oligodendrocyte and motor neuron specification in the spinal cord, as well as for the development of somatic motor neurons in the hindbrain. As a result, it plays a critical role in motor neuron and oligodendrocyte fate specification during development. It cooperates with OLIG1 to establish the pMN domain of the embryonic neural tube. The expression of OLIG2 is normally restricted to neural tissues; however, overexpression of OLIG2 has been shown in patients with precursor T-cell lymphoblastic lymphoma/leukemia. OLIG2 is a useful marker for the identification of oligodendroglioma. The expression level of OLIG2 in anaplastic oligodendrogliomas was more uniform and intense than in other glial tumors. Several primary brain tumors with clear cell histology, oligodendroglioma (OG), clear cell ependymoma (CCE) and central neurocytoma (CN) show different clinical and biological behavior; thus, prognosis and therapeutic approaches differ significantly. Anti-OLIG2 is useful in discriminating OG or dysembryoplastic neuroepithelial tumors (DNTs, OLIG2 positive) from CCE, CN and clear cell meningioma that are mostly negative for OLIG2.

Specifications

Clone:	MD66
Source:	Mouse
Isotype:	IgG1k
Reactivity:	Human
Localization:	Nucleus
Formulation:	Antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN ₃)
Storage:	Store at 2°- 8°C
Applications:	IHC
Package:	

Description	Catalog No.	Size
OLIG2 Concentrated	MC0376	1 ml
OLIG2 Prediluted	MC0376RTU7	7 ml

IHC Procedure*

Positive Control Tissue:	Astrocytoma
Concentrated Dilution:	50-200
Pretreatment:	Tris EDTA pH9.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C
Incubation Time and Temp:	30-60 minutes @ RT
Detection:	Refer to the detection system manual

* Result should be confirmed by an established diagnostic procedure.

References:

1. Congenital infection with atypical porcine pestivirus (APPV) is associated with disease and viral persistence. Schwarz L, et al. Vet Res 48:1, 2017.
2. Rationally Engineered AAV Capsids Improve Transduction and Volumetric Spread in the CNS. Kanaan NM, et al. Mol Ther Nucleic Acids 8:184-197, 2017.
3. LSD1 co-repressor Rcor2 orchestrates neurogenesis in the developing mouse brain. Wang Y, et al. Nat Commun 7:10481, 2016.
4. VCAM1 acts in parallel with CD69 and is required for the initiation of oligodendrocyte myelination. Miyamoto Y, et al. Nat Commun 7:13478, 2016.
5. More than hypomyelination in Pol-III disorder. Vanderver A, et al. J Neuropathol Exp Neurol 72:67-75, 2013.