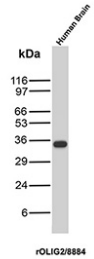
OLIG2 Antibody for WB / Oligodendrocyte Lineage Marker Antibody [clone rOLIG2/8884] (V4836)

Catalog No.	Formulation	Size
V4836-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4836-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4836SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	rOLIG2/8884
Purity	Protein A/G affinity
UniProt	Q13516
Localization	Nucleus
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT Western Blot : 2-4ug/ml
Limitations	This OLIG2 Antibody for WB / Oligodendrocyte Lineage Marker Antibody is available for research use only.



OLIG2 Antibody for WB Human Brain. Western blot analysis of Oligodendrocyte transcription factor 2 (OLIG2) expression in human brain tissue lysate using OLIG2 antibody clone rOLIG2/8884. Lane 1: human brain lysate. A band is detected at approximately 32â€“34 kDa, consistent with the predicted molecular weight of OLIG2. The clear detection at the expected size supports the use of this clone as an OLIG2 antibody for western blot applications in neural tissue analysis.

Description

Oligodendrocyte transcription factor 2 (OLIG2) is a basic helix-loop-helix transcription factor that serves as a central regulator of neural development and oligodendrocyte lineage specification. OLIG2 is predominantly localized to the nucleus of neural progenitor cells and oligodendrocyte precursor cells, where it controls transcriptional programs required for differentiation, proliferation, and maturation within the central nervous system. The OLIG2 Antibody for WB is designed to detect this key lineage-defining transcription factor in cell and tissue lysates, providing a reliable tool for analyzing neural cell populations and brain-derived samples.

OLIG2 antibody, also referred to as Oligodendrocyte transcription factor 2 antibody in the literature, recognizes a protein that is highly enriched in brain tissue, particularly within oligodendrocyte lineage cells and neural progenitor populations. Western blot analysis typically detects OLIG2 as a band at approximately 32Ã¢Â€Â“34 kDa, consistent with its predicted molecular weight. This reproducible detection at the expected size supports its use as a dependable marker in western blot workflows for confirming OLIG2 expression in neural tissues and cultured cells.

Structurally, OLIG2 contains a conserved basic helix-loop-helix domain that mediates DNA binding and dimerization with other transcription factors, enabling it to regulate gene expression programs essential for lineage specification. OLIG2 activity is tightly regulated through phosphorylation and other post-translational modifications, which can influence its subcellular localization, transcriptional activity, and role in cell fate decisions. While primarily nuclear, OLIG2 may also be detected in the cytoplasm depending on cellular state and regulatory context.

Functionally, OLIG2 plays a critical role in directing neural progenitor cells toward oligodendrocyte and motor neuron lineages during development. It is required for the generation of oligodendrocytes, the myelinating cells of the central nervous system, and contributes to proper myelin formation and maintenance. Beyond development, OLIG2 expression persists in certain adult neural cell populations and is widely used as a marker of oligodendrocyte lineage cells in research applications focused on neurobiology and regenerative processes.

OLIG2 is also strongly associated with brain tumor biology, particularly in gliomas, where it is frequently expressed in tumor cells and contributes to proliferation, survival, and maintenance of a progenitor-like phenotype. Its expression in both normal and neoplastic neural tissues makes it an important marker for studying central nervous system tumors, neural stem cell biology, and disease progression.

Clone rOLIG2/8884 is a recombinant mouse monoclonal antibody designed to detect OLIG2 with high specificity and sensitivity in western blot applications. Its ability to consistently identify OLIG2 at the expected molecular weight in brain tissue lysates provides confidence in target detection and supports its use in studies of neural development, oligodendrocyte biology, and central nervous system disease.

This antibody is part of a broader antibody panel offered by NSJ Bioreagents.

Application Notes

Optimal dilution of the OLIG2 Antibody for WB / Oligodendrocyte Lineage Marker Antibody should be determined by the researcher.

Immunogen

A recombinant fragment of human OLIG2 protein (within amino acids 200-313) was used as the immunogen for the OLIG2 antibody.

Storage

Aliquot the OLIG2 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

OLIG2 antibody, Oligodendrocyte transcription factor 2 antibody, OLIG2 WB antibody, OLIG2 neural marker antibody, OLIG2 brain antibody