Human Olig2 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF2418

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Olig2 in direct ELISAs and Western blots. In direct ELISAs, approximately 10% cross-reactivity with recombinant human (rh) Olig3 is observed and 5% cross-reactivity with rhOlig1 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human Olig2 Met1-Lys323 Accession # Q13516
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μm filtered solution in PBS.

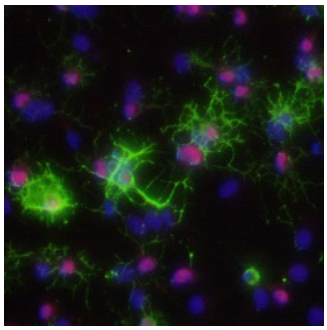
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Human Olig2
Chromatin Immunoprecipitation (ChIP)	5 µg/5 x 10^6 cells	See Below
Immunocytochemistry	5-15 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	Immersion fixed frozen sections of embryonic mouse spinal cord (E11)

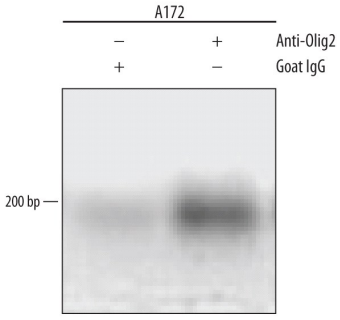
DATA

Immunocytochemistry



Olig2 and Oligodendrocyte Marker O4 in Rat Cortical Stem Cells. Olig2 and Oligodendrocyte Marker O4 were detected in 7 day differentiated rat cortical stem cells using 10 µg/mL Human Olig2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2418) and 10 µg/mL Human/Mouse/Rat/Chicken O4 Monoclonal Antibody (Catalog # MAB1326). Cells were incubated with primary antibodies for 3 hours at room temperature. Cells were stained for Olig2 using the NorthernLights™ 637-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL002), and stained for O4 using an anti-mouse IgM secondary antibody (pseudo-stained green). View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

Chromatin Immunoprecipitation (ChIP)



Detection of Olig2-regulated Genes by Chromatin Immunoprecipitation. A172 human glioblastoma cell line were fixed using formaldehyde, resuspended in lysis buffer, and sonicated to shear chromatin. Olig2/DNA complexes were immunoprecipitated using 5 µg Goat Anti-Human Olig2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2418) or control antibody (Catalog # AB-108-C) for 15 minutes in an ultrasonic bath, followed by Biotinylated Anti-Goat IgG Secondary Antibody (Catalog # BAF109). Immunocomplexes were captured using 50 µL of MagCellect Streptavidin Ferrofluid (Catalog # MAG999) and DNA was purified using chelating resin solution. The *p21* promoter was detected by standard PCR.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Olig1 and Olig2 are basic-helix-loop-helix (bHLH) transcription factors expressed in the motor neuron progenitor (pMN) domain of the spinal cord that generates motor neurons and oligodendrocytes. Olig1 is involved in the development and maturation of oligodendrocytes. Olig2 is required for oligodendrocyte and motor neuron specification in the spinal cord.