Human/Mouse/Rat Olig2 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF2418

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human Olig2 in direct ELISAs and Western blots.
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 either lyophilized or as a 0.2 μm filtered solution in PBS.

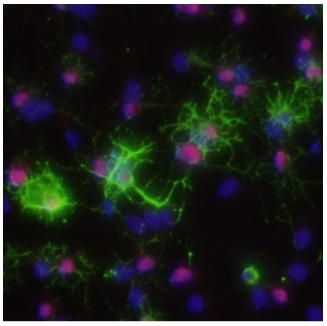
APPLICATIONS

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	See Below

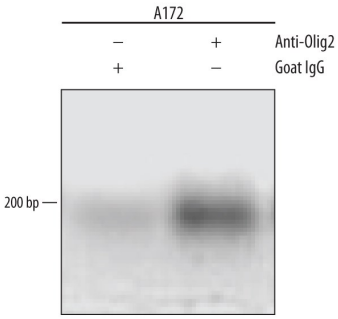
DATA

Immunocytochemistry



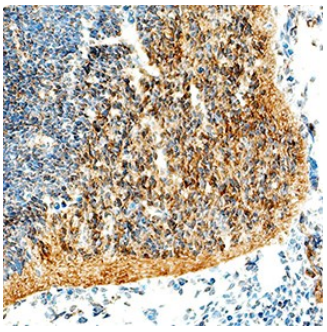
Olig2 and Oligodendrocyte Marker O4 in Rat Cortical Stem Cells. Olig2 and Oligodendrocyte Marker O4 were detected in 7 day differentiated rat cortical stem cells using 10 µg/mL Goat Anti-Human/Mouse/Rat Olig2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2418) and 10 µg/mL Goat Anti-Human/Mouse/Rat/Chicken O4 Monoclonal Antibody (Catalog # 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 # 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)



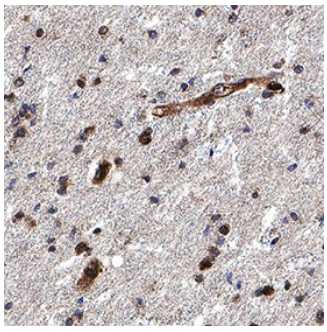
Detection of Olig2-regulated Genes by Chromatin Immunoprecipitation. A172 human glioblastoma cell line were fixed using formaldehyde, resuspended in lysis buffer, and sonicated to shear chromatin. Olig2/DNA complexes were immunoprecipitated using 5 µg Goat Anti-Human/Mouse/Rat Olig2 Antigen Affinity-purified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

Immunohistochemistry



Olig2 in Mouse Embryo. Olig2 was detected in immersion fixed frozen sections of mouse embryo (13 d.p.c.) using Goat Anti-Human/Mouse/Rat Olig2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2418) at 8 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # Catalog # CTS008) and counterstained with hematoxylin (blue). Specific staining was localized to developing brain. View our protocol for Chromogenic IHC Staining of Frozen Tissue Sections.

Immunohistochemistry



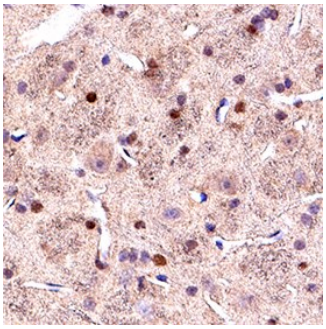
Olig2 in Human Brain. Olig2 was detected in immersion fixed paraffin-embedded sections of human brain (cortex) using Goat Anti-Human/Mouse/Rat Olig2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2418) at 10 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Goat IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC004). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cell nuclei. Staining was performed using our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449

Human/Mouse/Rat Olig2 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF2418

Immunohistochemistry



Olig2 in Rat Midbrain. Olig2 was detected in immersion fixed paraffin-embedded sections of rat midbrain using Goat Anti-Human/Mouse/Rat Olig2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2418) at 10 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Goat IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC004). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cell nuclei. Staining was performed using our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

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.

bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449