Mouse GFRα-3/GDNF Rα-3 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF2645

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse GFRα-3/GDNF Rα-3 in direct ELISAs and Western blots. In direct ELISAs, approximately 10% cross-reactivity with recombinant human GFRα-3 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*S. frugiperda* insect ovarian cell line *Sf* 21-derived recombinant mouse GFRα-3/GDNF Rα-3 Glu34-Arg379 Accession # AAB70931
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.

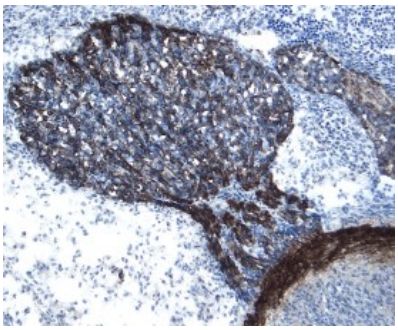
APPLICATIONS

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 Mouse GFRα-3/GDNF Rα-3 Fc Chimera (Catalog # 2645-FR)
Immunohistochemistry	5-15 µg/mL	See Below

DATA

Immunohistochemistry



GFRα-3/GDNF Rα-3 in Mouse Embryo. GFRa-3/GDNF Ra-3 was detected in immersion fixed frozen sections of mouse embryo (15 d.p.c.) using 15 µg/mL Goat Anti-Mouse GFRa-3/GDNF Ra-3 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2645) overnight at 4 °C. Tissue was stained with the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # Catalog # CTS008) and counterstained with hematoxylin (blue). Specific labeling was localized to developing dorsal root ganglion and spinal cord. View our protocol for Chromogenic IHC Staining of Frozen Tissue Sections.

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.

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

Mouse GFRα-3/GDNF Rα-3 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF2645

BACKGROUND

Mouse glial cell line-derived neurotrophic factor (GDNF) family receptor alpha 3 (GFRα-3) is a member of the GDNF family of receptors. It is one of four known members, all of which contain three conserved cysteine repeats (1, 3, 4). It is synthesized as a 397 aa precursor, with a hydrophobic signal sequence of 28 aa, a 343 aa mature segment, and a propeptide segment of 26 aa that is removed in the mature protein. The mature globular membrane glycoprotein has an approximate molecular weight of 50 kDa (5), contains three potential *N*-linked glycosylation sites, and a hydrophobic stretch of residues at its COOH terminus that comprises a GPI linkage sequence (2, 3, 5). Mouse GFRα-3 shares 81% aa sequence identity with human GFRα-3. High-level expression of GFRα-3 is observed only during early stages of neurogenesis in the central nervous system and in developing and adult peripheral nerves, organs, and ganglia (2, 3, 5, 7). The expression and proportions of GFRα-3 are closely linked to those of the Ret receptor tyrosine kinase, particularly in the trigeminal ganglion, pituitary gland, thymus, lung, and duodenum (3). GFRα-3 associates with Ret to form the receptor complex for the GDNF family ligand artemin, which, in turn, activates the complex (1, 6, 7). The activated complex's signal is required for the development and maintenance of superior cervical ganglion (SCG), specifically the rostral migration of SCG precursors between embryonic days 11.5 and 14.5, and the survival of SCG neurons after birth (8).

References:

1. Xinquan, W. *et al. (*2006) Structure **14**:1083.
2. Worby, C. *et al. (*1998) J. Biol. Chem. **273**:3502.
3. Naveilhan, P. *et al. (*1998) Proc. Natl. Acad. Sci. USA **95**:1295.
4. Nomoto, S. *et al. (*1998) Biochem. Biophys. Res. Commun. **244**:849.
5. Baloh, R. *et al. (*1998) Proc. Natl. Acad. Sci. USA **95**:5801.
6. Saarma, M. (2000) Eur. J. Biochem. **267**:6968.
7. Baloh, R. *et al. (*1998) Neuron **21**:1291.
8. Nishino, J *et al. (*1999) Neuron **23**:725.

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