

## Product datasheet for **TA328909**

### Gfra4 Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)GSRDG(S)PEEGGPR, corresponding to amino acid residues 160-172 of rat GFRa4 . Extracellular, N-terminus.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.05% NaN <sub>3</sub> .
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	GDNF family receptor alpha 4
Database Link:	<a href="#">NP_076457</a> <a href="#">Entrez Gene 14588 Mouse</a> <a href="#">Entrez Gene 66023 Rat</a> <a href="#">Q9EPI2</a>



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**Background:**

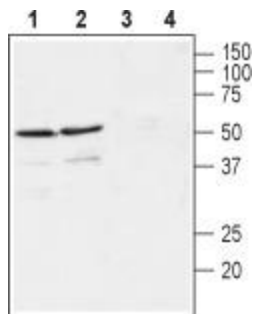
The GDNF family ligands (GFLs) belong to the super family of the TGF- $\beta$ . They belong to the group of cystine-knot protein and function as homodimer<sup>1</sup>. This family includes glial cell line-derived neurotrophic factor (GDNF), artemin (ARTN), Neurturin (NRTN) and persephin (PSPN). These factors are heavily involved in the development and function of the nervous system (both central and peripheral). In particular GDNF has an important role outside the nervous system where it plays a role in kidney morphogenesis. In general GFLs all signal through a signal through the receptor tyrosine kinase Ret. Their specificity is implemented by different GDNF family receptor a (GFRa), which act as co-receptors. These extracellular proteins are bound to the plasma membrane via a glycosyl phosphatidyl inositol (GPI) anchor. GFRa1-4 are responsible for the binding of GDNF, NRTN, ARTN, and PSPN respectively and the subsequent activation of Ret. Soluble forms of the receptor by the cleavage of a yet unknown phospholipase or protease can be detected. Also alternative spliced forms of the protein can lead to soluble forms of GFRa receptors.

**Synonyms:**

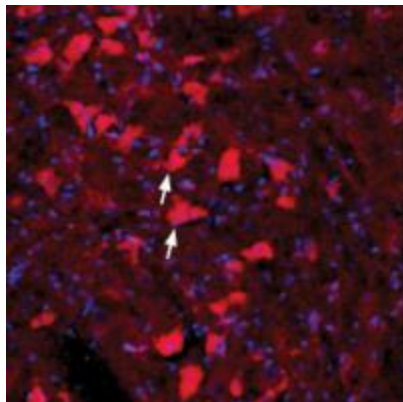
GFR-alpha-4

**Note:**

This antibody was tested in live cell imaging. Please see IF/ICC data for detail.

**Product images:**


Western blot analysis of rat (lanes 1 and 3) and mouse (lanes 2 and 4) brain membranes: 1-2. Anti-GDNF Family Receptor  $\alpha$ 4 (extracellular) antibody, (1:800). 3-4. Anti-GDNF Family Receptor  $\alpha$ 4 (extracellular) antibody, preincubated with the control peptide antigen.



Expression of GFR $\alpha$ 4 in rat red nucleus. Immunohistochemical staining of immersion-fixed, free floating rat brain frozen sections using Anti-GDNF Family Receptor  $\alpha$ 4 (extracellular) antibody, (1:100). Staining reveals expression of GFR $\alpha$ 4 (red) in cells with neuronal outline (arrows point at some examples) in the red nucleus. DAPI is used as the counterstain (blue).



Expression of GFR $\alpha$ 4 in rat PC12 cells. Immunocytochemical staining of live intact rat PC12 pheochromocytoma cells. Extracellular staining of cells with Anti-GDNF Family Receptor  $\alpha$ 4 (extracellular) antibody, (1:100), followed by goat anti-rabbit-AlexaFluor-594 secondary antibody (red). B. Cell nuclei stained with the cell permeable dye Hoechst 33342 (blue). C. Merge of the two images.