

Product datasheet for **TA328908**

Gfra1 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:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide CRSAMEALKQKS, corresponding to amino acid residues 72-83 of rat GFRa1. Extracellular domain.
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 ₃ .
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 1
Database Link:	NP_037091 Entrez Gene 2674 Human Entrez Gene 14585 Mouse Entrez Gene 25454 Rat Q62997



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Background:

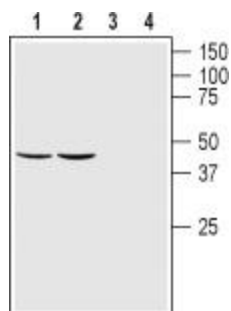
The GDNF family ligands (GFLs) belong to the super family of the TGF- β . They belong to the group of cystine-knot protein and function as homodimers. This family includes glial cell line-derived neurotrophic factor (GDNF), artemin (ARTN), Neurturin (NRTN) and persephin (PSPN). These factors are heavily 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. In respect to their important role in development, individual knockout of either *gdnf*, *gfra1* or *ret* gives rise to lethal phenotypes.

Synonyms:

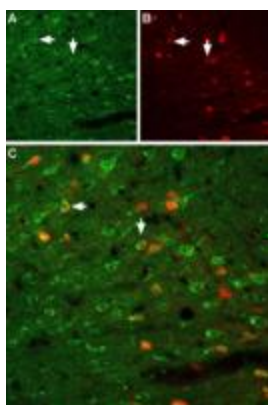
DKFZp313E1012; DKFZp686J0156; FLJ10561; FLJ31546; GDNFR; GDNFR-alpha; GDNFRA; GFR-ALPHA-1; MGC23045; RET1L; RETL1; TRNR1

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 lysates: 1, 2. Anti-GDNF Family Receptor α 1 (extracellular) antibody, (1:200). 3, 4. Anti-GDNF Family Receptor α 1 (extracellular) antibody, preincubated with the control peptide antigen.



Expression of GFR α 1 in rat neocortex. Immunohistochemical staining of immersion-fixed, free floating rat brain frozen sections using Anti-GDNF Family Receptor α 1 (extracellular) antibody, (1:100). A. GFR α 1 (green) is visualized in neocortex neurons. B. Neurons expressing gamma-aminobutyric acid (GABA) are labeled with parvalbumin (red). C. Merge of the two images demonstrates partial colocalization (arrows).



Expression of GFR α 1 in live intact rat C6 glioma cells. Immunocytochemical staining of live intact rat C6 glioma cells with Anti-GDNF Family Receptor α 1 (extracellular) antibody, (1:50), followed by goat-anti-rabbit-DyLight-594 secondary antibody (red) (A). B. Live view of the cells. C. Merge of the two images.