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# GDNF Receptor alpha 2 Rabbit pAb

GDNF Receptor alpha 2 Rabbit pAb
Catalog # AP54180

## Product Information

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| **Application** | WB, IHC-P, IHC-F, IF |
| **Primary Accession** | O00451 |
| **Reactivity** | Rat, Human, Mouse |
| **Predicted** | Dog, Chicken, Horse |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 51544 |
| **Physical State** | Liquid |
| **Immunogen** | KLH conjugated synthetic peptide derived from human GDNF Receptor alpha 2 |
| **Epitope Specificity** | 301-360/464 |
| **Isotype** | IgG |
| **Purity** | affinity purified by Protein A |
| **Buffer** | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. |
| **SUBCELLULAR LOCATION** | Cell membrane; Lipid-anchor, GPI-anchor. |
| **Important Note** | This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. |
| **Background Descriptions** | Glial cell line-derived neurotrophic factor (GDNF) and neurturin (NTN) are two structurally related, potent neurotrophic factors that play key roles in the control of neuron survival and differentiation. The protein encoded by this gene is a member of the GDNF receptor family. It is a glycosylphosphatidylinositol(GPI)-linked cell surface receptor for both GDNF and NTN, and mediates activation of the RET tyrosine kinase receptor. This encoded protein acts preferentially as a receptor for NTN compared to its other family member, GDNF family receptor alpha 1. This gene is a candidate gene for RET-associated diseases. Multiple transcript variants encoding different isoforms have been found for this gene. Members of the glial cell line-derived neurotrophic factor(GDNF) family, including GDNF and neurturin (NTN),play key roles in the control of vertebrate neuron survivaland differentiation. Physiological responses to NTN requirethe presence of a novel glycosylphosphadidylinositollinked protein NTNRa, which is a cell surface receptor forNTN. The cDNAs encoding NTNRa from human, rat,chicken, and mouse have been cloned recently. NTNRa was also termed GDNFRb, Ret ligand 2 (RETL2)or TGF-b-related neurotrophic factor receptor 2 (TrnR2) and nominated as GFRa-2 recently. GFRa-2 binds NTN and mediates activation of RET receptor tyrosine kinase by both NTN and GDNF. Thus, NTN, GFRa-2, and the Ret PTK form a complex to transduce NTN signal andto mediate NTN function. |

## Additional Information

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| **Gene ID** | 2675 |
| **Other Names** | GDNF family receptor alpha-2, GDNF receptor alpha-2, GDNFR-alpha-2, GFR-alpha-2, GDNF receptor beta, GDNFR-beta, Neurturin receptor alpha, NRTNR-alpha, NTNR-alpha, RET ligand 2, TGF-beta-related neurotrophic factor receptor 2, GFRA2, GDNFRB, RETL2, TRNR2 {ECO:0000303\|PubMed:9182803} |
| **Dilution** | WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 |
| **Storage** | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C. |

## Protein Information

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| **Name** | GFRA2 |
| **Synonyms** | GDNFRB, RETL2, TRNR2 {ECO:0000303\|PubMed |
| **Function** | Receptor for neurturin (NRTN), a growth factor that supports the survival of sympathetic neurons (PubMed:10829012, PubMed:29414779, PubMed:31535977, PubMed:9182803). NRTN-binding leads to autophosphorylation and activation of the RET receptor (PubMed:31535977). Also able to mediate GDNF signaling through the RET tyrosine kinase receptor (PubMed:9182803). |
| **Cellular Location** | Cell membrane {ECO:0000250\|UniProtKB:O08842}; Lipid-anchor, GPI-anchor {ECO:0000250\|UniProtKB:O08842} |
| **Tissue Location** | [Isoform 1]: found in both brain and placenta. |

## Background

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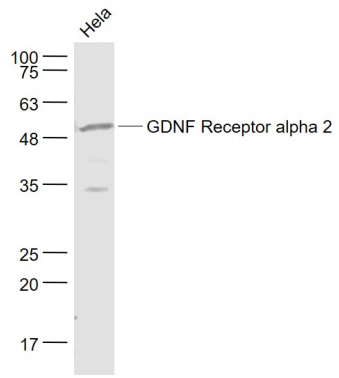
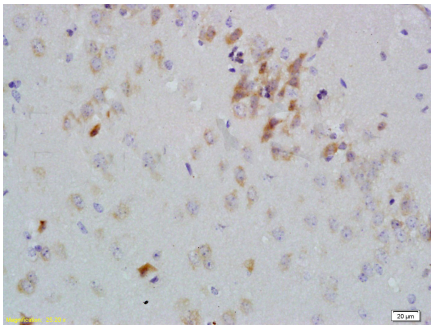
## Images




Sample:
Hela(Human) Cell Lysate at 30 ug
Primary: Anti- GDNF Receptor alpha 2 (AP54180) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 47 kD
Observed band size: 52 kD

Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal



goat serum,C-0005) at 37℃ for 20 min;
Incubation: Anti-GDNF-Receptor-alpha-2 Polyclonal Antibody, Unconjugated(AP54180) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining