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antibody and ELISA experts

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# Anti-GDNF Receptor alpha 1/GFRA1 Antibody Picoband™

**Catalog Number:** PB9202

## About GFRA1

GDNF family receptor alpha-1 (GFRalpha1), also known as the GDNF receptor or GFRA1, is a protein that in humans is encoded by the GFRA1 gene. It is mapped to chromosome 10q25.3. The protein encoded by this gene is a member of the GDNF receptor family. GFRA1 is released by neuronal cells, Schwann cells, and injured sciatic nerve. It is a glycosylphosphatidylinositol (GPI)-linked cell surface receptor for both GDNF and NTN, and mediates activation of the RET tyrosine kinase receptor. This gene is also a candidate gene for Hirschsprung disease. Soluble GFRA1 mediates robust recruitment of RET to lipid rafts via a mechanism requiring the RET tyrosine kinase.

## Overview

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| Product Name | Anti-GDNF Receptor alpha 1/GFRA1 Antibody Picoband™ |
| Reactive Species | Human |
| Description | Boster Bio Anti-GDNF Receptor alpha 1/GFRA1 Antibody Picoband™ catalog # PB9202. Tested in IHC, WB applications. This antibody reacts with Human. |
| Application | IHC, WB |
| Clonality | Polyclonal |
| Formulation | Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3. |
| Storage Instructions | Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles. |
| Host | Rabbit |
| Uniprot ID | P56159 |

## Technical Details

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| Immunogen | E.coli-derived human GFRA1 recombinant protein (Position: D25-Q227). Human GFRA1 shares 97% amino acid (aa) sequence identity with both mouse and rat GFRA1. |
| Predicted Reactive Species | Human |
| Recommended Detection Systems | Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P). |
| Cross Reactivity | No cross-reactivity with other proteins |
| Isotype | Rabbit IgG |
| Form | Lyophilized |
| Concentration | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml. |

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| Purification | Immunogen affinity purified. |
| Suggested Dilutions | Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.<br>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.<br>Some PubMed article(s) citing the expression level of this target are as follows:<br>Boster Bio's internal QC testing used:<br>Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, By Heat<br>Western blot, 0.1-0.5ug/ml, Human |

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# Anti-GDNF Receptor alpha 1/GFRA1 Antibody Picoband™ (PB9202) Images


Figure 1. Western blot analysis of GFRA1 using anti-GFRA1 antibody (PB9202).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours.
Lane 1: recombinant human GFRA1 protein 0.5 ng.
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-GFRA1 antigen affinity purified polyclonal antibody (Catalog # PB9202) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for GFRA1 at approximately 39 kDa. The expected band size for GFRA1 is at 39 kDa.

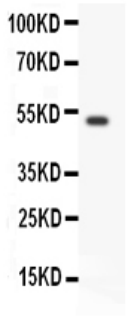


Figure 2. Western blot analysis of GFRA1 using anti-GFRA1 antibody (PB9202).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human placenta tissue lysates,
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-GFRA1 antigen affinity purified polyclonal antibody (Catalog # PB9202) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for GFRA1 at approximately 51 kDa. The expected band size for GFRA1 is at 51 kDa.

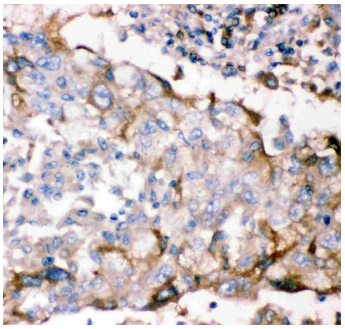

Figure 3. IHC analysis of GFRA1 using anti-GFRA1 antibody (PB9202).
GFRA1 was detected in a paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-GFRA1 Antibody (PB9202) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

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## 1 Publications Citing This Product

1. PubMed ID: 33989617, Zhu WQ,Cai NN,Jiang Y,Yang R,Shi JZ,Zhu CL,Zhang BY,Tang B,Zhang XM.Survivable potential of germ cells after trehalose cryopreservation of bovine testicular tissues.Cryobiology.2021 May 11:S0011-2240(21)00081-X.doi:10.1016/j.cryobiol.2021.05.001.Epub ahead of print.PMID:33989617.

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