Data Sheet (Cat.No.TMAB-06413)

Anti-GDNF Receptor alpha 2 Polyclonal Antibody

Product Details

Ig Type:	IgG
Reactivity:	Human,Mouse,Rat (predicted:Chicken,Dog,Cow,Horse)
Molecular Weight:	Theoretical: 47 kDa. Actual: 50 kDa.
Purification:	Protein A purified

Applications

Verified Activity:	1. Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01 M, pH 6.0), Boiling bathing for 15 min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30 min; Blocking buffer (normal goat serum) at 37℃ for 20 min; Incubation: Anti-GDNF-Receptor-alpha-2 Polyclonal Antibody, Unconjugated (TMAB-06413) 1: 200, overnight at 4℃, followed by conjugation to the secondary antibody and DAB staining 2. Sample: Hela (Human) Cell Lysate at 30 µg Primary: Anti-GDNF Receptor alpha 2 (TMAB-06413) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 47 kD Observed band size: 52 kD 3. Sample: Lane 1: Mouse Cerebrum tissue lysates Lane 2: Mouse Liver tissue lysates Primary: Anti-GDNF Receptor alpha 2 (TMAB-06413) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 47 kDa Observed band size: 47 kDa
Application:	WB,IHC-P,IHC-Fr,IF
Recommended	WB: 1:500-2000; IHC-P: 1:100-500; IHC-Fr: 1:100-500; IF: 1:100-500

Properties

Stability & Storage:	Store at 2℃-8℃ for 1 month. Store at -20℃ or -80℃ for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	KLH conjugated synthetic peptide: human GDNF Receptor alpha 2
Antigen Species:	Human
Gene ID:	2675
Uniprot ID:	O00451

Research Background

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.