

Human ROBO2 Protein (His Tag)

Catalog Number: 10310-H08H



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

KIAA1568; ROBO2; SAX3; 2600013A04Rik; 9430089E08Rik; BB097918; D230004I22Rik; mKIAA1568

Protein Construction:

A DNA sequence encoding the human ROBO2 (Q9HCK4-1) (Met1-Pro859) was expressed with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Ser 22

Molecular Mass:

The recombinant human ROBO2 consists of 849 amino acids and predicts a molecular mass of 94.2 KDa. It migrates as an approximately 116 KDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

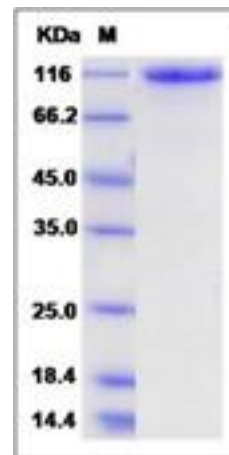
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

ROBO2 belongs to the ROBO family. Members of the ROBO family are a group of highly conserved transmembrane glycoproteins that make up a small subgroup of the immunoglobulin (Ig) superfamily. They are best known for their roles as receptors for the Slit family of repellent axon guidance cues. In structure, ROBOs are characterized by five C2-type Ig-like repeats, three fibronectin type III domains, a transmembrane region, and an intracellular domain with three (ROBO3) or four (ROBO1, 2) CC (conserved cytoplasmic) motifs. ROBO2 is a receptor for SLIT2, and probably SLIT1, which are thought to act as molecular guidance cue in cellular migration, including axonal navigation at the ventral midline of the neural tube and projection of axons to different regions during neuronal development. ROBO2 also abrogates SLIT-ROBO signaling in vitro.

References

1. Brose K, *et al.* (1999) Slit proteins bind Robo receptors and have an evolutionarily conserved role in repulsive axon guidance. *Cell*. 96(6):795-806.
2. Brose K, *et al.* (1999) Slit2-Mediated chemorepulsion and collapse of developing forebrain axons. *Neuron*. 22(3):463-73.
3. Nagase T, *et al.* (2001) Prediction of the coding sequences of unidentified human genes. XVIII. The complete sequences of 100 new cDNA clones from brain which code for large proteins in vitro. *DNA Res.* 7(4):273-81.

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