

# **Screening Libraries**

**Proteins** 

# **Product** Data Sheet

# PLXNA1 Protein, Mouse (HEK293, His)

Cat. No.: HY-P700813

Plexin-A1; PlexinA1; Plex 1; Plexin-1; Kiaa4053; NOV; NOVP; Synonyms:

Species: HEK293 Source:

Accession: P70206 (S28-P1242)

Gene ID: 18844

Molecular Weight: 140-160 kDa

| O | OP | OPF | OPFR | OPERTI |
|---|----|-----|------|--------|

| Appearance          | Lyophilized powder.  |
|---------------------|--|
| Formulation         | Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Normally 8% trehalose is added as protectant before lyophilization.   |
| Endotoxin Level     | <1 EU/µg, determined by LAL method.  |
| Reconsititution     | It is not recommended to reconstitute to a concentration less than 100 $\mu g/mL$ in ddH <sub>2</sub> O.   |
| Storage & Stability | Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage. |
| Shipping            | Room temperature in continental US; may vary elsewhere.  |

## **DESCRIPTION**

Background

PLXNA1 protein acts as a coreceptor for SEMA3A, SEMA3C, SEMA3F, and SEMA6D, playing a crucial role in signaling by class 3 semaphorins and subsequent cytoskeletal remodeling. It is involved in axon guidance, invasive growth, and cell migration. The binding of class 3 semaphorins to a complex composed of a neuropilin and PLXNA1 modulates the complex's affinity for specific semaphorins, and the cytoplasmic domain of PLXNA1 is essential for activating downstream signaling events. PLXNA1 directly interacts with NRP1, NRP2, FARP2, RND1, and KDR/VEGFR2, and SEMA3A binding leads to the dissociation of FARP2. Additionally, PLXNA1 interacts with CRMP1, DPYSL2/CRMP2, DPYSL3/CRMP3, and DPYSL4/CRMP4.

Caution: Product has not been fully validated for medical applications. For research use only.

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Page 1 of 1