# Recombinant PLXA2 protein (His tag)

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| **Catalog Number** | 541840 |
| **Synonyms** | Semaphorin receptor OCT |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | O75051 |
| **Molecular Weight** | Predictes a molecular mass of 41.35 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 44 kDa band. |

## Product Information

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| **Sequence Region** | 1259-1600 |
| **Form** | Lyophilized powder |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4 |
| **Purity** | >87%, by SDS-PAGE with Coomassie Brilliant Blue staining. |
| **Endotoxin** | Not tested. |
| **Activity** | Not tested. |
| **Stability** | Samples are stable for up to twelve months from date of receipt at -70℃ |
| **Protein Construction** | DNA encoding 1259-1600 aa (O75051) were fused with 6His tag. |

## Storage & Handling

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| **Reconstitution** | Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. |
| **Storage** | Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. |
| **Shipping** | In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature.<br>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise. |

## Description

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| **Description** | Introducing the recombinant Plexin-A2 (Semaphorin receptor OCT) fragment (residues 1259-1600), a 342-amino acid protein derived from human PLXNA2. This fragment is expertly designed for structural and biochemical studies, offering a stable and soluble unit ideal for investigating axon guidance, cell migration, and cytoskeletal remodeling mechanisms.<br>Plexin-A2, encoded by the PLXNA2 gene in humans, functions as a coreceptor for SEMA3A and SEMA6A, playing a critical role in signaling pathways that regulate axon guidance, invasive growth, and cell migration. It forms complexes with neuropilins to bind class 3 semaphorins, where the plexin component modulates binding affinity and activates downstream cytoplasmic signaling events essential for cytoskeletal reorganization. As a single-pass type I membrane protein, it is localized to the cell membrane, facilitating its involvement in key developmental and cellular processes. |