

Active Recombinant Human BAI2 protein, Fc-tagged

Cat. No. BAI2-190H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human BAI2(Phe21-Asp911) fused with Fc region of Human IgG1 at C-terminal was expressed in HEK293.
Species	Human
Source	HEK293
ProteinLength	21-911 a.a.

Description

Brain angiogenesis inhibitor 2 (BAI2), along with BAI1 and BAI3, form a subfamily of brain specific adhesion GPCRs. They are large, glycosylated molecules, approximately 180-220 kDa, and play a role in neuronal synapse formation and maintenance. Mature human BAI2 consists of a 903 amino acid (aa) N-terminal extracellular domain (ECD) containing four TSP1 domains, a hormone binding domain (HBD), a GAIN domain and a GPS protease sensitive linker, followed by a region with seven transmembrane segments and a 410 aa C-terminal cytoplasmic domain. Within the N-terminal ECD, human BAI2 shares 96% aa sequence identity with both mouse and rat BAI2. BAI2 is expressed primarily in neurons and astrocytes of the hippocampus and cerebral cortex in the brain. To become functional, BAI2 might require activation by cleavage at the GPS domain. BAI family members are known to bind the C1q-like complement (C1qL) family via thrombospondin type 1 repeats (TSRs) which are conserved between BAI members. BAI2 has been shown to suppress expression of VEGF leading to increased neurogenesis in the dentate gyrus of the hippocampus.

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Predicted N Terminal	Phe21
Form	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.
Bio-activity	Measured by its binding ability in a functional ELISA. When Recombinant Human C1qL3 is immobilized at 2 µg/mL, 100 µL/well, the concentration of Recombinant Human BAI2 Fc Chimera that produces 50% of the optimal binding response is approximately 25-150 ng/mL.
Molecular Mass	Predicted Molecular Mass: 123 kDa SDS-PAGE: 128-200 kDa, reducing conditions
Endotoxin	<0.1 EU per 1 µg of the protein by the LAL method.
Purity	>85%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Reconstitution	Reconstitute at 250 µg/mL in PBS.

GENE INFORMATION

Gene Name	BAI2 brain-specific angiogenesis inhibitor 2 [Homo sapiens]
Official Symbol	BAI2
Synonyms	BAI2; brain-specific angiogenesis inhibitor 2; Brain-specific angiogenesis inhibitor-2;

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Gene ID	576
mRNA Refseq	NM_001703
Protein Refseq	NP_001694
MIM	602683
UniProt ID	O60241

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