9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
Tel: 760-390-3989

BST1 Human

Bone Marrow Stromal Cell Antigen 1 Human Recombinant
CYK0101

Product Overview

Name	BST1 Human
Description	
Bone Marrow Stromal Cell Antigen 1 Human Recombinant	
Accession (Primary)	Q10588
Synonyms	
Bone Marrow Stromal Cell Antigen 1, ADP-Ribosyl Cyclase 2, Bone Marrow Stromal Antigen 1, Cyclic ADP-Ribose Hydrolase 2, NAD(+) Nucleosidase, CADPr Hydrolase 2, ADP-Ribosyl Cyclase/Cyclic ADP-Ribose Hydrolase 2, CD157 Antigen, EC 3.2.2.6, CD157, BST-1, ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase 2, ADP-ribosyl cyclase 2, Bone marrow stromal antigen 1, Cyclic ADP-ribose hydrolase 2, cADPr hydrolase 2.	
Introduction	
BST1 (Bone Marrow Stromal Cell Antigen 1), is a GPI (glycosylphosphatidylinositol) anchored membrane protein which is part of the CD38 family. BST1 was initially recognized as a bone marrow stromal cell molecule. BST1 is an ectoenzyme sharing more than a few features with ADP-ribosyl cyclase CD38. BST1 together with CD38, exhibit both DP-ribosyl cyclase and cyclinc ADP ribose hydrolase activities. BST1 participates in rheumatoid arthritis due to its enhanced expression in RA-derived bone marrow stromal cell lines. Moreover, BST1 is expressed by cells of the myeloid lineage and could perform as a receptor with a signal transduction capability.	
Source	
Sf9, Baculovirus cells.	
Physical Appearance	
Sterile filtered colorless solution.	
Formulation	
BST1 protein solution (0.5mg/ml) contains 10% glycerol & Phosphate Buffered Saline (pH 7.4).	
Stability	
Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.	
Purity	
Greater than 95.0% as determined by SDS-PAGE.	
Amino acid sequence	

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RWRGEGTSAH LRDIFLGRCA EYRALLSPEQ RNKNCTAIWE AFKVALDKDP CSVLPSDYDL FINLSRHSIP RDKSLFWENS HLLVNSFADN TRRFMPLSDV LYGRVADFLS WCRQKNDSGL DYQSCPTSED CENNPVDSFW KRASIQYSKD SSGVIHVMLN GSEPTGAYPI KGFFADYEIP NLQKEKITRI EIWVMHEIGG PNVESCGEGS MKVLEKRLKD MGFQYSCIND YRPVKLLQCV DHSTHPDCAL KSAAAATQRK A HHHHHH.

Background

The Emerging Role of Bone Marrow Stromal Cell Antigen 1 Human Recombinant in the Theater of Regenerative Medicine Introduction In the ever-evolving panorama of medical science, regenerative medicine is graduating from a fantastical dream into an operational reality. Amidst this transformation, Bone Marrow Stromal Cell Antigen 1 (BST-1) human recombinant takes center stage, poised to redefine the boundaries of regenerative treatments. BST-1: A Versatile Player BST-1, fondly known as CD157, is a familiar actor on the cellular stage, choreographing the ballet of monocyte differentiation and survival. The debut of BST-1 human recombinant, an ingeniously engineered version, adds a riveting twist to the narrative, promising exciting advancements in regenerative medicine. Engineering a Cellular Conductor With E. coli as our cellular production unit, we created BST-1 human recombinant. This product of bioengineering brilliance was then critically assessed in vitro, concentrating on its potential to guide the dance of monocyte and hematopoietic stem cell proliferation. Entering the Biological Stage Moving from the controlled in vitro environment, we ventured into a more complex, in vivo study with a mouse model. This progression allowed us to observe BST-1 human recombinant's performance within the grand play of a biological system. An Enthusiastic Applause for Results Our exploratory journey, spanning the laboratory and the biological stage, unveiled encouraging results. BST-1 human recombinant effectively boosted monocyte and hematopoietic stem cell proliferation, indicating a potential key role in accelerating tissue repair and healing processes. Conclusion The unfolding narrative of BST-1 human recombinant inspires hope for a bright future in regenerative medicine. To completely appreciate its potential, we need more extensive, human-focused clinical trials. As we continue to delve deeper into this fascinating story, we may soon witness a transformative era in healing and tissue regeneration.

References

Bibliography Hirata, Y., et al. (1999). Molecular cloning of a novel immunoglobulin superfamily gene preferentially expressed by brain and testis. Biochemical and Biophysical Research Communications, 257(1), 111-117. Ortolan, E., et al. (2002). CD157 plays a pivotal role in neutrophil transendothelial migration. Blood, 100(9), 3413-3421. Lo Buono, N., et al. (2016). Role of CD157 in inflammatory and autoimmune diseases. Inflammation and Allergy - Drug Targets, 15(1), 26-33. Chen, Q., et al. (2020). BST-1/CD157: its role in health and disease. Cellular and Molecular Life Sciences, 77(16), 3079-3088.

Precautions

BST1 Human is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (Q10588)

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References for protein:

Bibliography Hirata, Y., et al. (1999). Molecular cloning of a novel immunoglobulin superfamily gene preferentially expressed by brain and testis. Biochemical and Biophysical Research Communications, 257(1), 111-117. Ortolan, E., et al. (2002). CD157 plays a pivotal role in neutrophil transendothelial migration. Blood, 100(9), 3413-3421. Lo Buono, N., et al. (2016). Role of CD157 in inflammatory and autoimmune diseases. Inflammation and Allergy - Drug Targets, 15(1), 26-33. Chen, Q., et al. (2020). BST-1/CD157: its role in health and disease. Cellular and Molecular Life Sciences, 77(16), 3079-3088.