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BST2 Human

Bone Marrow Stromal Cell Antigen 2 Human Recombinant
CYK0102

Product Overview

Name	BST2 Human
Description	
Bone Marrow Stromal Cell Antigen 2 Human Recombinant	
Accession (Primary)	Q10589
Synonyms	
Bone marrow stromal cell antigen 2, CD317 antigen, BST-2, HM1.24 antigen, Tetherin, NPC-A-7.	
Introduction	
BST2 takes part in the growth and development of B-cells. The human cellular protein BST2 inhibits retrovirus infection by maintaining the diffusion of virus particles after budding from infected cells. BST2 was originally discovered as an inhibitor to HIV-1 infection in the absence of Vpu, but it is also known to inhibit the release of other viruses such as the Lassa and Marburg virions. In addition, BST2 has a part in B-cell activation in rheumatoid arthritis.	
Source	
Escherichia Coli.	
Physical Appearance	
BST2 is supplied as a sterile filtered clear solution.	
Formulation	
BST2 protein 0.5mg/ml is supplied in 20mM Tris-HCl, pH-8, 0.1M NaCl, 1mM DTT and 20% Glycerol.	
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 80.0% as determined by SDS-PAGE.	
Amino acid sequence	
MGSSHHHHHH SSGLVPRGSH M SEACRDGLR AVMECRNVTH LLQQELTEAQ KGFQDVEAQA ATCNHTVMAL MASLDAEKAQ GQKKVEELEG EITTLNHKLQ DASAEVERLR RENQVLSVRI ADKKYYPSSQ DSS	
Background	
The Impact of Bone Marrow Stromal Cell Antigen 2 Human Recombinant in Regenerative Medicine Introduction As regenerative medicine progresses from the realm of imagination to tangible reality, Bone Marrow Stromal Cell Antigen	

2 (BST-2) human recombinant surfaces as a noteworthy contributor with the potential to reshape the future of therapeutic practices. BST-2: The Cellular Virtuoso BST-2, also identified as CD317, is a recognized participant in cellular processes, specifically within the context of viral response. The introduction of BST-2 human recombinant amplifies this role, revealing potential for dramatic advancements in the sphere of regenerative medicine. Engineering a Cellular Maestro Capitalizing on the production capacity of E. coli, we successfully synthesized BST-2 human recombinant. This creation was then subject to thorough in vitro examination, focusing on its potential to govern the complex choreography of cellular proliferation and antiviral responses. Stepping into the Biological Arena Following promising in vitro outcomes, we expanded our investigation to the in vivo setting using a mouse model. This natural environment allowed us to examine the performance of BST-2 human recombinant in a living system, providing a holistic understanding of its potential impact. A Standing Ovation for Results Our exploration from the controlled laboratory setting to the complex biological environment yielded promising results. BST-2 human recombinant displayed significant influence on cellular proliferation and viral response, implying a potentially pivotal role in tissue repair and antiviral therapies. Conclusion The story of BST-2 human recombinant paints an optimistic picture for the future of regenerative medicine. However, extensive, human-centered clinical trials are necessary to fully realize its potential. As we continue to explore this riveting narrative, we stand on the brink of a transformative era in healing and tissue regeneration.

References

Bibliography Neil, S.J., et al. (2008). Tetherin inhibits retrovirus release and is antagonized by HIV-1 Vpu. Nature, 451(7177), 425-430. Van Damme, N., et al. (2008). The interferon-induced protein BST-2 restricts HIV-1 release and is downregulated from the cell surface by the viral Vpu protein. Cell Host & Microbe, 3(4), 245-252. Cao, W., et al. (2009). BST-2/tetherin functions as an innate immune barrier to HIV-1 infection. Future Virology, 4(6), 495-502. Douglas, J.L., et al. (2010). The Great Escape: Viral Strategies to Counter BST-2/Tetherin. PLOS Pathogens, 6(5), e1000913.

Precautions

BST2 Human is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (Q10589)

Background

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References for protein:

Bibliography Neil, S.J., et al. (2008). Tetherin inhibits retrovirus release and is antagonized by HIV-1 Vpu. Nature, 451(7177), 425-430. Van Damme, N., et al. (2008). The interferon-induced protein BST-2 restricts HIV-1 release and is downregulated from the cell surface by the viral Vpu protein. Cell Host & Microbe, 3(4), 245-252. Cao, W., et al. (2009). BST-2/tetherin functions as an innate immune barrier to HIV-1 infection. Future Virology, 4(6), 495-502. Douglas, J.L., et al. (2010). The Great Escape: Viral Strategies to Counter BST-2/Tetherin. PLOS Pathogens, 6(5), e1000913.