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s100bb Bovine

s100bb Bovine homodimer
RCP1979

Product Overview

Name	s100bb Bovine

Description

s100bb Bovine homodimer

Source

Bovine brain tissue.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

s100bb was lyophilized from 5mM Tris-HCl, pH 7.5, 2mM EDTA and 5mM 2-mercaptoethanol.

Stability

Lyophilized s100bb homodimer although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution s100bb should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity

Greater than 95.0% .

Solubility

It is recommended to reconstitute the lyophilized s100bb in sterile 18MΩ-cm H2O containing 5mM 2- mercaptoethanol not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Background

S100BB, a member of the S100 family of proteins, is a calcium-binding protein that plays a significant role in various cellular processes, particularly in the central nervous system (CNS). Initially identified as a brain-specific protein, S100BB has captured the attention of researchers due to its involvement in neurological signaling, brain development, and its potential implications in neurological disorders. This research delves into the enigmatic world of S100BB, aiming to uncover its diverse functions, regulatory mechanisms, and its relevance in health and disease. Discovery and Structural Insights: S100BB was first discovered in the brain, primarily localized in astrocytes, a type of glial cell in the CNS. Structurally, S100BB is characterized by its EF-hand motifs, allowing it to bind calcium ions, a property crucial for its function. These calcium-binding abilities enable S100BB to participate in intricate cellular signaling pathways, making it a vital player in the dynamic communication within the CNS. Neurological Signaling and Plasticity:

Within the CNS, S100BB has been implicated in neuronal signaling and synaptic plasticity. It interacts with several target proteins, modulating their activities and influencing processes like neurotransmitter release and neuronal differentiation. Furthermore, S100BB participates in the regulation of intracellular calcium levels, a key factor in neuronal excitability and synaptic transmission. Understanding these roles is vital for unraveling the complexities of neurological function and plasticity.

Precautions

s100bb Bovine is for research use only and not for use in diagnostic or therapeutic procedures.

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