

SNTA1 Human

Description: SNTA1 Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 528 amino acids (1-505 a.a.) and having a molecular mass of 56.3kDa. SNTA1 is fused to a 23 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

Synonyms: Alpha-1-syntrophin, 59 kDa dystrophin-associated protein A1 acidic component 1, Pro-TGF-alpha cytoplasmic domain-interacting protein 1, TACIP1, Syntrophin-1, SNTA1, SNT1, LQT12, dJ1187J4.5.

Source: E.coli.

Physical Appearance: Sterile Filtered colorless solution.

Amino Acid Sequence: MGSSHHHHHH SSGLVPRGSH MGSMASGRRA PRTGLLELRA
GAGSGAGGER WQRVLLSLAE DVLTVSPADG DPGPEPGAPR EQEPAQLNGA AEPGAGPPQL
PEALLQRRR VTVRKADAGG LGISIKGGRE NKMPILISKI FKGLAADQTE ALFVGDAILS
VNGEDLSSAT HDEAVQVLKK TGKEVVLEVY YMKDVSPYFK NSTGGTSVGW DSPPASPLQR
QPSSPGTPR NF

Purity: Greater than 80% as determined by SDS-PAGE.

Formulation:

SNTA1 protein solution (1mg/ml) containing 20mM Tris-HCl buffer (pH 8.0), 10% glycerol, 1mM DTT and 0.15M NaCl.

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.

Usage:

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

Introduction:

SNTA1 is a member of the syntrophin gene family. SNTA1 is a peripheral membrane protein found linked with dystrophin and dystrophin-related proteins. Dystrophin is a large, rod-like cytoskeletal protein located at the inner surface of muscle fibers. Dystrophin is absent in Duchenne Muscular Dystrophy patients, however it is present in reduced amounts in Becker Muscular Dystrophy patients. Syntrophins are cytoplasmic peripheral membrane scaffold proteins and components of the dystrophin-associated protein complex. The N-terminal PDZ domain of SNTA1 interacts with the C-terminus of the pore-forming alpha subunit (SCN5A) of the cardiac sodium channel Nav1.5. In addition, SNTA1 associates cardiac sodium channels with the nitric oxide synthase-PMCA4b (plasma membrane Ca-ATPase subtype 4b) complex in cardiomyocytes. The SNTA1 gene is a predisposition locus for Long-QT syndrome (LQT) - an inherited disorder associated with sudden cardiac death from arrhythmia - and sudden infant death syndrome (SIDS). SNTA1 also associates with dystrophin and dystrophin-related proteins at the neuromuscular junction and modifies intracellular calcium ion levels in muscle tissue.

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