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# **Product Datasheet**

Product Name Down Syndrome Critical Region 1 Human Recombinant

Cata No CB500940
Source Escherichia Coli.

Synonyms Calcipressin-1, Regulator of calcineurin 1, Down syndrome critical region protein 1,

Myocyte-enriched calcineurin-interacting protein 1, MCIP1, Adapt78, RCAN1,

ADAPT78, CSP1, DSC1, DSCR1, RCN1.

# **Description**

DSC1 encoded by a gene located in the human chromosome 21, interacts with calcineurin A and inhibits calcineurin-dependent signaling pathways, possibly affecting central nervous system development. DSC1 is located in the minimal candidate region for the Down syndrome phenotype, and is over expressed in the brain of Down syndrome fetuses. Chronic over expression of this gene may lead to neurofibrillary tangles such as those associated with Alzheimer disease. Three transcript variants encoding three different isoforms have been found for this gene.

DSCR1 Inhibits calcineurin-dependent transcriptional responses by binding to the catalytic domain of calcineurin A, possibly affecting central nervous system development.

DSC1 Isoform-b Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 117 amino acids and having a molecular mass of 13 kDa.

# **Physical Appearance**

Sterile Filtered colorless solution.

#### **Purity**

Greater than 95.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

#### **Formulation**

The protein solution contains 20mM Tris-HCl pH-7.5, 100mM NaCl and 1mM DTT.

### **Stability**

SNAP25 although stable 4℃ for 4 weeks, should be stored desiccated below -18℃.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Please prevent freeze-thaw cycles.

### **Sequence**

MKLYFAQTLH IGSSHLAPPN PDKQFLISPP ASPPVGWKQV EDATPVINYD LLYAISKLGPGEKYELHAAT DTTPSVVVHV CESDQEKEEE EEMERMRRPK PKIIQTRRPE YTPIHLS.