Human Small Nuclear Ribonucleoprotein Sm D1 (SmD1)

Origin:	Recombinant	**Cat. No.:**	41540
Tag:	N-terminal 6xHis	**Size:**	0.1 mg
Source:	*Spodoptera frugiperda* Sf9	**Purity:**	>90%
Other Names:	SmD1, snRNPD1	**Species:**	Human

Description

Expressed in insect Sf9 cells with total 143 AA. Mw: 16.2 KDa (calculated).
N-terminal 6xHis-tag and TEV cleavage site, 25 extra AA (highlighted).
Recombinant antigen for research use or manufacturing only.

Introduction to the Molecule

Small nuclear ribonucleoprotein complexes (abbreviated as U-snRNP) are essential for splicing of precursor mRNA molecules. Seven different Sm proteins aggregate into a heteroheptameric protein core, including small nuclear ribonucleoprotein Sm D1 (SmD1 or snRNPD1).
In the blood of patients with systemic lupus erythematosus, antinuclear antibodies are developed with Sm specificity.

Immunological Function

As an autoantigen, SmD1 binds with IgG-type human auto-antibodies.

Amino Acid Sequence

MSYYHHHHHHDYDIPTTENLYFQGAKLVRFLMKLSHETVTIELKNGTQVHGTITGVDVSM
NTHLKAVKMTLKNREPVQLETLSIRGNNIRYFILPDSLPLDTLLVDVEPKVKSKKREAVAGRGRG
RGRGRGRGRGRGRGGPRR

Applications

Standard ELISA test, line/dot assay and microarray assay with positive/negative sera panels.

Formulation

Liquid in storage buffer (50mM Tris, 300mM NaCl, 0.4M L-Arginine, Protease inhibitor, pH8.0).

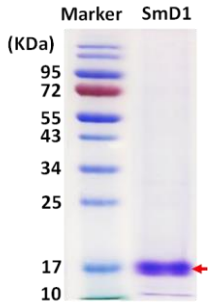
Storage

Store at –80°C. Avoid repeated freezing /thawing cycles.

Quality Control Test

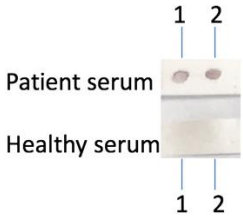
BCA to determine quantity of the protein.
SDS PAGE to determine purity of the protein.
Immunodot analysis to determine functionality of protein.

SDS-PAGE Gel



Dot blot assay

Dot blot analysis of SmD1



Analysis of serum from healthy subjects and patients. Recombinant autoantigens were utilized in this dot-blot assay for validation

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