

## SmD

### Antigen Specification

**Product Number:** 11700

**Description:**

Human SmD.  
Mixture of human small nuclear ribonucleoprotein polypeptides of the RNP/Sm complex: Small nuclear ribonucleoprotein D1 polypeptide (SNRPD1; SmD1); small nuclear ribonucleoprotein D2 polypeptide (SNRPD2; SmD2); small nuclear ribonucleoprotein D3 polypeptide (SNRPD3; SmD3). Mixture contains equal mass of each protein component.  
Recombinant antigen for in vitro research and manufacturing use only.

**Immunological function:**

Binds IgG-type human auto-antibodies.

**Origin:**

Recombinant. Expressed by recombinant baculovirus (*Autographa californica* multiple nuclear polyhedrosis virus; AcMNPV) infection of *Spodoptera frugiperda* Sf9 insect cells under conditions promoting symmetrical dimethylation of arginine residues.

**Expression constructs:**

cDNAs coding for the mature forms of the human SmD1, SmD2 and SmD3 proteins individually fused to a hexa-histidine purification tag.

**Biochemical tests:**

SDS-PAGE (purity > 80%); Western blot with i: anti-Sm autoantibody-positive sample; ii: monoclonal anti-His-tag antibody.

**Calculated molecular weights of unmodified proteins:**

SmD1	14 kDa
SmD2	15 kDa
SmD3	15 kDa

**Calculated isoelectric points of unmodified proteins:**

SmD1	pH 11.56
SmD2	pH 9.92
SmD3	pH 10.33

**Immunological tests/Functionality:**

Standard ELISA test (checkerboard analysis of positive/negative samples); immunodot analyses with positive/negative samples.

**Recommended buffer/storage and handling conditions:**

Recommendations for storage buffer: neutral to slightly alkaline pH. Storage conditions: -70°C or below. Repeated freeze/thaw cycles should be avoided.

**Coating concentration:**

0.4-0.8 µg/mL (depending on the type of ELISA plate and coating buffer). Suitable for labeling of functional groups.

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