

## SmD3

### Antigen Specification

**Product Number: 12000**

**Description:**

Human small nuclear ribonucleoprotein D3 polypeptide (SNRPD3; SmD3). 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. Expression conditions allow for introduction of symmetrical arginine dimethylation, thereby creating the main SmD3 autoepitope.

**Expression construct:**

Full-length cDNA coding for the human SmD3 protein fused to a hexa-histidine purification tag.

**Biochemical tests:**

SDS-PAGE (purity > 80%); Western blot with anti-Sm autoantibody-positive sample.

**Calculated molecular weight of unmethylated SmD3 precursor:**  
15 kDa

**Calculated isoelectric point of unmethylated SmD3 precursor:**  
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 and 20% glycerol as cryoprotective agent. 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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