U1-snRNP 68/70 kDa

Antigen Specification

Product Number: **13000**

Description:
Human U1-snRNP 68/70 kDa protein component of the U1 small nuclear ribonucleoprotein particle.
Recombinant antigen for in vitro research and manufacturing use only.

Immunological function:
Binds IgG-type human auto-antibodies.

Origin:
Recombinant. Expressed in *E. coli* bacterial cells.

Expression construct:
cDNA coding for the 70kDa isoform of the human U1-snRNP 68/70 kDa protein (lacking 66 internal amino acids outside the known epitope-containing areas) fused to a hexa-histidine purification tag.

Biochemical tests:
SDS-PAGE (purity > 90%); Western blot with i: anti-U1-snRNP 68/70 kDa autoantibody-positive sample; ii: monoclonal anti-His-tag antibody.

Calculated molecular weight:
45 kDa
(U1-snRNP 68/70 kDa displays aberrant electrophoretic mobility leading to an apparent discrepancy between calculated molecular weight and the 55-56 kDa molecular weight determined for this internally shortened molecule by SDS gel electrophoresis).

Calculated isoelectric point:
pH 10.2

Immunological tests/Functionality:
Standard ELISA test (checkerboard analysis of positive/negative sample panels, including CDC international reference sera); line assay and immunodot analyses with positive/negative samples.

Recommended buffer/storage and handling conditions:
Recommendations for storage buffer: neutral to slightly alkaline pH; due to purification workup under denaturing conditions presence of up to 0.02% SDS (or similar detergents) may be required for maintaining solubility. Storage conditions: -70°C or below. Repeated freeze/thaw cycles should be avoided.

Coating concentration:
0.3-0.6 µg/mL (depending on the type of ELISA plate and coating buffer). Suitable for labeling of functional groups.

Remark on assays with this antigen:
Anti-RNP autoantibodies, traditionally determined with the entire U1-snRNP particle as antigen, will require simultaneous use of recombinant U1-snRNP 68/70 kDa, U1-snRNP A and U1-snRNP C antigens for complete identification of anti-RNP positive sample.