

## NCKIPSD Protein, Human, Recombinant (GST)

### General Information

|                       |   |
|-----------------------|---|
| Synonyms:             | NCK interacting protein with SH3 domain;WASLBP;SPIN90;ORF1;VIP54;AF3P21;DIP;WISH;DIP1   |
| Protein Construction: | A DNA sequence encoding the mature form of human NCKIPSD (Q9NZQ3-3) (Met1-Thr244) was expressed with the GST tag at the N-terminus. Predicted N terminal: Met |
| Species:              | Human   |
| Expression Host:      | E. coli   |
| Accession:            | Q9NZQ3-3  |
| Molecular Weight:     | 53.2 kDa (predicted); 53 kDa (reducing conditions)  |

### QC Testing

|                      |   |
|----------------------|---|
| Biological Activity: | Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.  |
| Purity:              | > 90 % as determined by SDS-PAGE  |
| Endotoxin:           | Please contact us for more information.   |
| Formulation:         | Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS, pH7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization. |

### Preparation and Storage

|                      |  |
|----------------------|--|
| Reconstitution:      | A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.  |
| Stability & Storage: | It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.<br><small>Actual storage temperature shall be subject to the COA.</small> |
| Shipping:            | In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.   |

### Protein Background

NCKIPSD is localized exclusively in the cell nucleus. It plays a role in signal transduction and may function in the maintenance of sarcomeres and the assembly of myofibrils into sarcomeres. NCKIPSD also plays an important role in stress fiber formation. NCKIPSD gene is involved in therapy-related leukemia by a chromosomal translocation t(3;11)(p21;q23) that involves this gene and the myeloid/lymphoid leukemia gene. Alternative splicing occurs in this locus and two transcript variants encoding distinct isoforms have been identified. NCKIPSD is an SH3 domain

protein. Fas ligand is a cytotoxic effector molecule of T and NK cells which is characterized by an intracellular N-terminal polyproline region that serves as a docking site for SH3 and WW domain proteins. Several previously described Fas ligand-interacting SH3 domain proteins turned out to be crucial for the regulation of storage, expression, and function of the death factor. Recent observations, however, indicate that Fas ligand is also subject to posttranslational modifications including shedding and intramembrane proteolysis.

### Reference

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- Sano K, et al. (2000) Novel SH3 protein encoded by the AF3p21 gene is fused to the mixed lineage leukemia protein in a therapy-related leukemia with t(3;11) (p21;q23). *Blood.* 95(3): 1066-8.
- Voss M, et al. (2009) Identification of SH3 domain interaction partners of human FasL (CD178) by phage display screening. *BMC Immunol.* 10:53.

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