

## Recombinant Human SPAG1 Protein, Myc/DDK-tagged, C13 and N15-labeled

**Cat. No.** SPAG1-6726H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | SPAG1 MS Standard C13 and N15-labeled recombinant protein (NP_003105) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Source</b>           | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Description</b>      | The correlation of anti-sperm antibodies with cases of unexplained infertility implicates a role for these antibodies in blocking fertilization. Improved diagnosis and treatment of immunologic infertility, as well as identification of proteins for targeted contraception, are dependent on the identification and characterization of relevant sperm antigens. The protein expressed by this gene is recognized by anti-sperm agglutinating antibodies from an infertile woman. Furthermore, immunization of female rats with the recombinant human protein reduced fertility. This protein localizes to the plasma membrane of germ cells in the testis and to the post-acrosomal plasma membrane of mature spermatozoa. Recombinant polypeptide binds GTP and exhibits GTPase activity. Thus, this protein may regulate GTP signal transduction pathways involved in spermatogenesis and fertilization. Two transcript variants of this gene encode the same protein. |
| <b>Molecular Mass</b>   | 103.5 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>AA Sequence</b>      | MTTKDYP SLWGFGTTKTFKIP IEHLDFKYIEK CSDVKHLEKILCVLRSGEEGYYPELTE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

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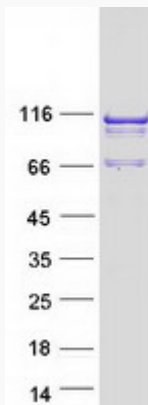
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FCEKHLQALAPESRALRKDKPAATAASFTAEEWEKIDGDIKSWVSEIKKEEDKMHFH  
 ETETFPAMKDNLPPVRGSNSCLHVGKEYSKRPTKKKTPRDYAEWDKFDVEKECLK  
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 LIQSLKNNLIEKDPSLVYQHLLYLSKAERFKMMLTLISKGQKELIEQLFEDLSDTPNNH  
 FTLEDIQALKRQYELTRTRPLEQKLISEEDLAANDILDYKDDDDKV

|                       |                                                                                            |
|-----------------------|--------------------------------------------------------------------------------------------|
| <b>Purity</b>         | > 80% as determined by SDS-PAGE and Coomassie blue staining                                |
| <b>Stability</b>      | Stable for 3 months from receipt of products under proper storage and handling conditions. |
| <b>Storage</b>        | Store at -80 centigrade. Avoid repeated freeze-thaw cycles.                                |
| <b>Concentration</b>  | 50 µg/mL as determined by BCA                                                              |
| <b>Storage Buffer</b> | 100 mM glycine, 25 mM Tris-HCl, pH 7.3.                                                    |

## GENE INFORMATION

|                        |                                                                                                                                                                                                                                                                                                                                                           |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | SPAG1 sperm associated antigen 1 [ Homo sapiens (human) ]                                                                                                                                                                                                                                                                                                 |
| <b>Official Symbol</b> | SPAG1                                                                                                                                                                                                                                                                                                                                                     |
| <b>Synonyms</b>        | SPAG1; sperm associated antigen 1; SP75; TPIS; CT140; CILD28; HSD-3.8; HEL-S-268; sperm-associated antigen 1; TPR-containing protein involved in spermatogenesis; epididymis secretory protein Li 268; infertility-related sperm protein Spag-1; tetratricopeptide repeat-containing protein                                                              |
| <b>Gene ID</b>         | 6674                                                                                                                                                                                                                                                                                                                                                      |
| <b>mRNA Refseq</b>     | NM_003114                                                                                                                                                                                                                                                                                                                                                 |
| <b>Protein Refseq</b>  | NP_003105                                                                                                                                                                                                                                                                                                                                                 |
| <b>MIM</b>             | 603395                                                                                                                                                                                                                                                                                                                                                    |
| <b>UniProt ID</b>      | Q07617                                                                                                                                                                                                                                                                                                                                                    |
| <b>SDS-PAGE</b>        |  <p>The SDS-PAGE gel image shows two distinct protein bands. The upper band is at approximately 116 kDa and the lower band is at approximately 66 kDa. Molecular weight markers are indicated on the left side of the gel at 116, 66, 45, 35, 25, 18, and 14 kDa.</p> |