

**HUMAN SPAM1 PROTEIN, HFC TAG****Cat.#:** 11716**Product Name:** Human SPAM1 Protein**Size:** 10 µg, 50 µg and 100 µg**Synonyms:** HEL-S-96n;HYA1;HYAL1;HYAL3;HYAL5;PH-20;PH20;SPAG15**Target:** SPAM1**UNIPROT ID:** P38567**Description:** Recombinant human SPAM1 protein with C-terminal human Fc tag

**Background:** Hyaluronidase degrades hyaluronic acid, a major structural proteoglycan found in extracellular matrices and basement membranes. Six members of the hyaluronidase family are clustered into two tightly linked groups on chromosome 3p21.3 and 7q31.3. This gene was previously referred to as HYAL1 and HYA1 and has since been assigned the official symbol SPAM1; another family member on chromosome 3p21.3 has been assigned HYAL1. This gene encodes a GPI-anchored enzyme located on the human sperm surface and inner acrosomal membrane. This multifunctional protein is a hyaluronidase that enables sperm to penetrate through the hyaluronic acid-rich cumulus cell layer surrounding the oocyte, a receptor that plays a role in hyaluronic acid induced cell signaling, and a receptor that is involved in sperm-zona pellucida adhesion. Abnormal expression of this gene in tumors has implicated this protein in degradation of basement membranes leading to tumor invasion and metastasis. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Mar 2010]

**Species/Host:** HEK293

**Molecular Weight:** The protein has a predicted molecular mass of 77.2 kDa after removal of the signal peptide. The apparent molecular mass of SPAM1-hFc is approximately 100-130 kDa due to glycosylation.

**Molecular Characterization:** SPAM1(Leu36-Tyr482) hFc(Glu99-Ala330)

**Purity:** The purity of the protein is greater than 95% as determined by SDS-PAGE and Coomassie blue staining.

**Formulation & Reconstitution:** Lyophilized from nanodisc solubilization buffer (20 mM Tris-HCl, 150 mM NaCl, pH 8.0). Normally 5% – 8% trehalose is added as protectants before lyophilization.

**Storage & Shipping:** Store at  $-20^{\circ}\text{C}$  to  $-80^{\circ}\text{C}$  for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at  $-80^{\circ}\text{C}$  (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.

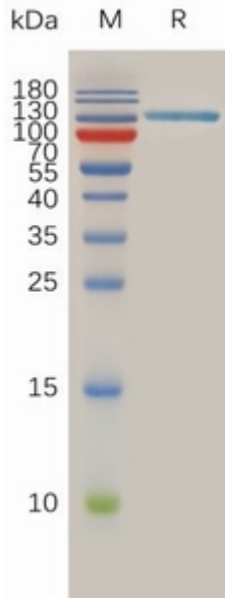


Figure 1. Human SPAM1 Protein, hFc Tag on SDS-PAGE under reducing condition.