HUMAN ZP3 PROTEIN, HIS TAG

Cat.#: 11522

Product Name: Human ZP3 Protein

Size : 10 µg, 50 µg and 100 µg

Synonyms: Zona pellucida sperm-binding protein 3;perm receptor;P3A/ZP3B;p-3;ona pellucida protein C

Target: ZP3

UNIPROT ID: P21754

Description: Recombinant human ZP3 protein with C-terminal 6xHis tag

Background: The zona pellucida is an extracellular matrix that surrounds the oocyte and early embryo. It is composed primarily of three or four glycoproteins with various functions during fertilization and preimplantation development. The protein encoded by this gene is a structural component of the zona pellucida and functions in primary binding and induction of the sperm acrosome reaction. The nascent protein contains a N-terminal signal peptide sequence, a conserved ZP domain, a C-terminal consensus furin cleavage site, and a transmembrane domain. It is hypothesized that furin cleavage results in release of the mature protein from the plasma membrane for subsequent incorporation into the zona pellucida matrix. However, the requirement for furin cleavage in this process remains controversial based on mouse studies. A variation in the last exon of this gene has previously served as the basis for an additional ZP3 locus; however, sequence and literature review reveals that there is only one full-length ZP3 locus in the human genome. Another locus encoding a bipartite transcript designated POMZP3 contains a duplication of the last four exons of ZP3, including the above described variation, and maps closely to this gene. [provided by RefSeq, Jul 2008]

Species/Host: HEK293

Molecular Weight: The protein has a predicted molecular mass of 66.6 kDa after removal of the signal peptide. The apparent molecular mass of ZP3-His is approximately 100-130 kDa due to glycosylation.

Molecular Characterization: ZP3(Gln23-Ser386) 6×His tag

Purity: The purity of the protein is greater than 85% 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.

FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC APPLICATIONS

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

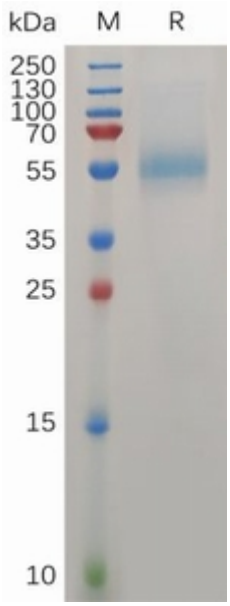

Figure 1. Human ZP3 Protein, His Tag on SDS-PAGE under reducing condition.