

32-17861: Recombinant Human ZP3 Protein, His Tag

Uniprot ID : P21754

Alternative Name : Zona pellucida sperm-binding protein 3/Sperm receptor/ZP3A/ZP3B/Zp-3/Zona pellucida protein C

Description

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

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.

Description: Recombinant human ZP3 protein with C-terminal 6Å—His tag

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.

Product Info

Amount : 100 µg / 50 µg

Content : Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8% trehalose is added as protectants before lyophilization.

Storage condition : 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.