



## Recombinant Protein Technical Manual

**Recombinant Human IA2/PTPRN Protein (aa 576-950, His Tag)**  
RPES0898

### Product Data:

**Product SKU:** RPES0898

**Size:** 10µg

**Species:** Human

**Expression host:** E. coli

**Uniprot:** Q16849

### Protein Information:

**Molecular Mass:** 44.6 kDa

**AP Molecular Mass:** 50 kDa

**Tag:** N-6His

**Bio-activity:**

**Purity:** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.

**Shipping:** This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < -20°C.

**Formulation:** Supplied as a 0.2 µm filtered solution of 20mM Tris, 150mM NaCl, pH8.0.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** Receptor-type tyrosine-protein phosphatase-like N; R-PTP-N; Islet cell antigen 512; ICA 512; Islet cell autoantigen 3; PTP IA-2; PTPRN; ICA3; ICA512

## Immunogen Information:

**Sequence:** Arg576-Gln950

## Background:

Receptor-type tyrosine-protein phosphatase-like N (PTPRN) belongs to the protein-tyrosine phosphatase family and receptor class 8 subfamily. PTPRN contains 1 tyrosine-protein phosphatase domain, is expressed in neuroendocrine cells only. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. It is implicated in neuroendocrine secretory processes. It may be involved in processes specific for neurosecretory granules, such as their biogenesis, trafficking or regulated exocytosis or may have a general role in neuroendocrine functions. It seems to lack intrinsic enzyme activity, may play a role in the regulation of secretory granules via its interaction with SNTB2. This PTP was found to be an autoantigen that is reactive with insulin-dependent diabetes mellitus (IDDM) patient sera, and thus may be a potential target of autoimmunity in diabetes mellitus.