ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

# Metal Transporter Protein (MTP1/IREG1/Ferroportin, Fpn) Antibodies

□ Cat. # MTP15-R-5 Recombinant (E. coli) human Metal Transporter Protein1/Ferroportin (MTP1/IREG1/Fpn; 127-321aa) (NT-His tag, >95%, 54 kda) **SIZE**: 5 ug

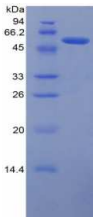
A novel iron-regulated gene that is homologous to the DMAT1, termed **Metal Transporter Protein (MTP1,** human 571 aa, mouse 570 aa; ~90% similarity*)*, has been identified. MTP1 is also described as iron-regulated transporter (**IREG1**), **Ferroportin1 (fpn), and SLC11A3 iron transporter** or solute carrier family 11 (proton coupled divalent metal ion transporter), Member 3, formerly SLC11A3). MTP1 contains IRE in the 5'-UTR. It is expressed in tissues involved in body iron homeostasis including the developing and mature reticuloendothelial system, the duodenum, and the pregnant uterus. MTP1 is also expressed in muscle and central nervous system cells in the embryo. In the adult mouse, MTP1 expression in the liver and duodenum are reciprocally regulated. Iron deficiency induces MTP1 expression in the duodenum but down-regulates expression in the liver. Therefore, MTP1 appears to be an iron-regulated protein that is involved in iron metabolism.

**Protein name** Solute carrier family 40 member 1
**Synonyms** Ferroportin-1, Iron-regulated transporter 1 (IREG1), Metal transporter protein 1 (MTP1)
**Gene name** Name: Slc40a1 , Fpn1, Ireg1, Slc11a3, Slc39a1

## Source of Antigen and Antibodies

Human MTP/Fpn 127-321aa

MSPILGYWKI KGLVQPTRLL LEYLEEKYEE HLYERDEGDK WRNKKFELGL EFPNLPYYID GDVKLTQSMA IIRYIADKHN MLGGCPKERA EISMLEGAVL DIRYGVSRIA YSKDFETLKV DFLSKLPEML KMFEDRLCHK TYLNGDHVTH PDFMLYDALD VVLYMDPMCL DAFPKLVCFK KRIEAIPQID KYLKSSKYIA WPLQGWQATF GGGDHPPKSD GSTSGSGHHH HHHSAGLVPR GSTAIGMKET AAAKFERQHM DSPDLGTLEV LFQGPLGSEF-**WVLTSCYIL I ITIANIANLA STATAITIQR DWIVVVAGED RSKLANMNAT IRRIDQLTNI LAPMAVGQIM TFGSPVIGCG FISGWNLVSM CVEYVLLWKV YQKTPALAVK AGLKEEETEL KQLNLHKDTE PKPLEGTHLM GVKDSNIHEL EHEQEPTCAS QMAEPFRTFR DGWVSYYNQP VFLAGMGLAF LYMTV**




Human Fpn/SLC40A1 (protein accession #QNP59; W127-V321) was expressed in E. coli as His/GST-tag protein and purified (~54 kda, >95%). It is supplied in containing 5% sucrose, 0.01% sarcosyl (or see lot sp. conc on the vial) or lyophilized in the same buffer. Reconstitute powder in water. Store at -20oC in suitable size aliquots. Do not freeze and thaw.

Endotoxin: <1 EU/mg protein.

**Storage**

**Short-term**: unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC..

**Long-term**: at –20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

**Stability**: 6-12 months at –20oC or below.
**Shipping**: 4oC for solutions and room temp for powder

## Recommended Usage

**Western Blotting** load 100-200 ng protein/lane

**ELISA**: coat at 0.5-5 ug/ml.

**General References**: Abboud S (2000) JBC 275; 19906; McKie S et al (2000) Mol. Cell. 5, 299-309; Donovan A et al (2000) 403, 776; CanonneHergaux F et al (1999) Blood 93, 4406 (review);

*This product is for In vitro research use only.

## Related material available from ADI

| AntibodyType | Catalog# | ProdDescription |
|---|---|---|
| Rabbit-Poly | MTP11-A | Anti-Mouse Metal Transporter Protein1/Ferroportin (MTP1/IREG1/Fpn) IgG aff pure |
| | MTP11-P | Mouse Metal Transporter Protein1/Ferroportin (MTP1/IREG1/Fpn) Control/blocking peptide |
| Rabbit-Poly | MTP11-S | Anti-Mouse Metal Transporter Protein 1/Ferroportin (MTP1/IREG1/Fpn) antiserum |
| Mouse-Mono | MTP12-M | Monoclonal Anti-Mouse Metal Transporter Protein1/Ferroportin (MTP1/IREG1/Fpn) IgG aff pure |
| Mouse-Mono | MTP15-R-10 | Recombinant (E. coli) human Metal Transporter Protein1/Ferroportin (MTP1/IREG1/Fpn; 127-321aa) (NT-His tag, >95%, 54 kda) |

Antibodies NRAMP1/2, MTP1, Transferrin, and receptor, Ferritin, Defensins 1-4, Hemeoxygenases 1-3



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