

Product datasheet

Anti-DMT1 antibody ab55812

★★★★☆ 2 Abreviews 5 References 2 Images

Overview

Product name	Anti-DMT1 antibody
Description	Rabbit polyclonal to DMT1
Host species	Rabbit
Tested applications	Suitable for: WB, ELISA, ICC/IF
Species reactivity	Reacts with: Mouse, Human
Immunogen	Synthetic peptide corresponding to N-terminal residues of mouse DMT1.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	Preservative: 0.01% Sodium azide Constituents: 50% Glycerol, PBS
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab55812** in the following tested applications.

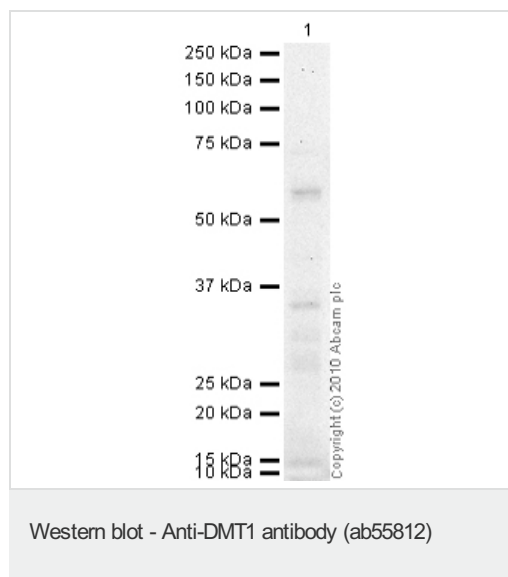
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use a concentration of 1 - 2 µg/ml. Detects a band of approximately 62 kDa (predicted molecular weight: 62 kDa).
ELISA		Use at an assay dependent dilution.
ICC/IF	★★★★☆	1/200.

Target

Function	Important in metal transport, in particular iron. Can also transport manganese, cobalt, cadmium, nickel, vanadium and lead. Involved in apical iron uptake into duodenal enterocytes. Involved in iron transport from acidified endosomes into the cytoplasm of erythroid precursor cells. May play an important role in hepatic iron accumulation and tissue iron distribution.
Tissue specificity	Ubiquitously expressed. Isoform 1 is highly expressed in brain. Isoform 2 is highly expressed in spleen, thymus and pancreas. Isoform 3 and isoform 4 are abundantly expressed in duodenum and kidney.
Involvement in disease	Defects in SLC11A2 are a cause of hypochromic microcytic anemia (HCMA) [MIM:206100]. The disease is characterized by an abnormal hemoglobin content in the erythrocytes which are reduced in size. It may be hereditary or acquired. Mutations in SLC11A2 are associated with progressive liver iron overload and normal to moderately elevated serum ferritin levels.
Sequence similarities	Belongs to the NRAMP family.
Post-translational modifications	Ubiquitinated by WWP2.
Cellular localization	Endosome membrane.

Images



Anti-DMT1 antibody (ab55812) at 1 µg/ml + Human pancreas tissue lysate - total protein (ab29816) at 10 µg

Secondary

Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (ab97080) at 1/5000 dilution

Developed using the ECL technique.

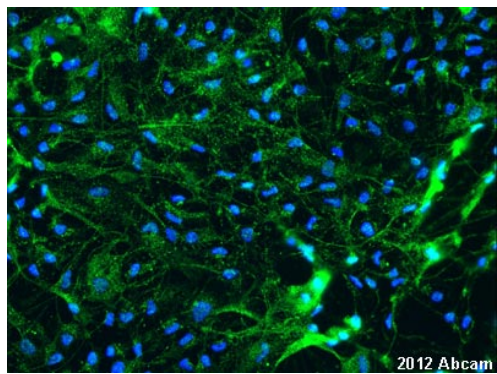
Performed under reducing conditions.

Predicted band size: 62 kDa

Observed band size: 62 kDa

Additional bands at: 34 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 16 minutes



Immunocytochemistry/ Immunofluorescence - Anti-DMT1 antibody (ab55812)

This image is courtesy of an Abreview submitted by Ruma Raha-Chowdhury

ab55812 staining cultured ED18 rat primary hippocampal neurons by ICC/IF. The cultured cells were fixed with 4% paraformaldehyde for 5 minutes and blocked with 10% donkey serum in 0.1% PBS-0.3% TritonX for 30 minutes at 24°C. The cultured cells were then stained with ab55812 at 1/200 in 0.3% TritonX with 0.1% PBS and 10% donkey serum for overnight at 4°C. An Alexa Fluoro 488 donkey anti-rabbit polyclonal antibody at 1/1000 was used as the secondary antibody. Nuclei were stained with 1.43µM Hoechst and can be observed in blue.

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