Data Sheet (Cat.No.TMAC-00130)

Anti-ALAS1 Antibody (7J767)

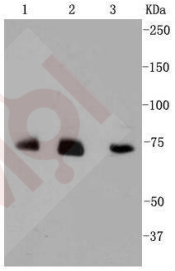
Product Details

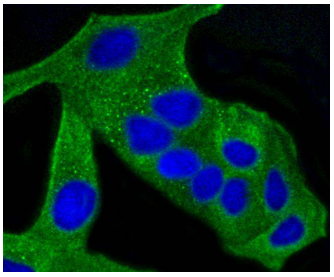
Ig Type:	IgG
Reactivity:	Human
Conjugation:	Unconjugated
Molecular Weight:	Theoretical: 71 kDa.
Clone:	7J767
Purification:	ProA affinity purified

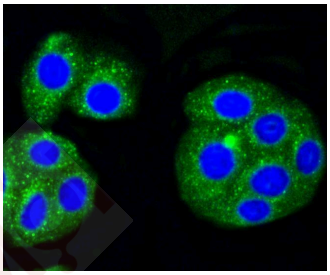
Applications

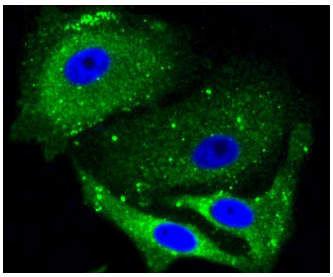
Verified Activity:

1. Western blot analysis of Alas1 on different cell lysates using anti-Alas1 antibody at 1/1,000 dilution. Positive control: Lane 1: JAR, Lane 2: HUVEC, Lane 3: Hela.
2. ICC staining Alas1 in Hela cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
3. ICC staining Alas1 in HepG2 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
4. ICC staining Alas1 in MCF-7 cells (green). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.









Application:	ICC/IF,WB
Recommended	WB: 1:1000-5000; ICC/IF: 1:50-200

Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	Recombinant Protein
Uniprot ID:	P13196
Synonyms:	EC 2.3.1.37;mitochondrial;Delta-ALA synthase 1;5-aminolevulinate synthase;nonspecific;ALAS 1;Delta-aminolevulinate synthase 1;ALAS3 ALASH;ALAS-H;5-aminolevulinic acid synthase 1

Research Background

5-aminolevulinate synthase 1 (ALAS-H) and 2 (ALAS-E) are two isoforms of ALAS, an enzyme catalyzing the first step of the heme biosynthetic pathway in mammals. The erythroid-specific isoenzyme, ALAS-E, regulates the first step of hematopoietic cell differentation and iron metabolism in the liver. ALAS-H is a housekeeping protein which mediates synthesis of early heme in the mitochondria of most cells. Succinyl CoA associates with ALAS-E in protein conformation change and translocation of ALAS-E into the mitochondria and does not interact with ALAS-H. The ALAS-E 5'-flanking region contains binding sites for nuclear activators such as GATA-1, NF-E2 and EKLF. Since the ALAS gene maps to the X chromosome, mutation of the gene leads to the pyridoxine-refractory X-linked sideroblastic anemia.

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