abcam

ab174848

Anti-AdSS 2 antibody [EPR12331-73]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR12331-73
Purification technique	Affinity purification Protein A
Concentration	0.113 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000 - 1/5000
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/50 - 1/100
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/10 - 1/100
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information ADSS2

Function	Plays an important role in the de novo pathway and in the salvage pathway of purine nucleotide biosynthesis. Catalyzes the first committed step in the biosynthesis of AMP from IMP.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	AdSS 2 also known as Adenylate Succinate Synthase 2 is an enzyme that functions in the cellular ATP generation process. It catalyzes an important step in the purine nucleotide cycle specifically the conversion of inosine monophosphate (IMP) to adenylosuccinate. This enzyme has an approximate molecular weight of 55 kDa. AdSS 2 is widely expressed in tissues with high energy demands such as liver muscle and brain where it plays a major role in maintaining cellular energy balance.
Biological function summary	AdSS 2 is important for the synthesis of AMP from IMP acting as a part of the purine biosynthesis pathway. It does not work alone; it associates with other enzymes involved in the nucleotide metabolism complex ensuring efficiency of ATP production. This activity supports various cellular functions that require rapid energy turnover reflecting its necessity in tissues with intense metabolic activity.
Pathways	This enzyme integrates into the broader purine metabolism and energy homeostasis pathways. It connects with the enzyme fumarase in a pathway that regulates the TCA cycle's connection to nucleotide metabolism. Furthermore its interaction with proteins like adenylosuccinate lyase shows its involvement in the cascading steps of purine synthesis helping maintain a balance between energy supply and demand.
Associated diseases and disorders	AdSS 2 has relevant implications in metabolic conditions like gout and certain types of myopathies. Mutations in this enzyme can disrupt purine metabolism leading to excessive accumulation of uric acid a hallmark of gout. Similarly impaired AdSS 2 function links to muscle disorders where energy metabolism is compromised. Proteins such as adenylosuccinate lyase and fumarase may be co-involved in these metabolic disorders highlighting the interconnected nature of metabolic function and disease.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

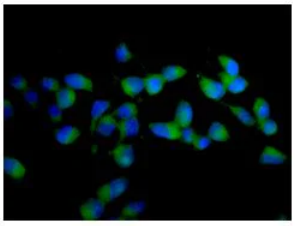
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

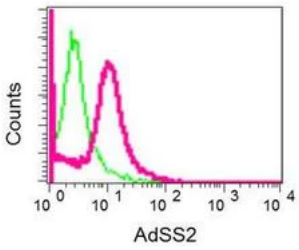
3 product images



Immunocytochemistry/ Immunofluorescence - Anti-AdSS 2 antibody [EPR12331-73] (ab174848)

AdSS 2 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-AdSS 2 antibody

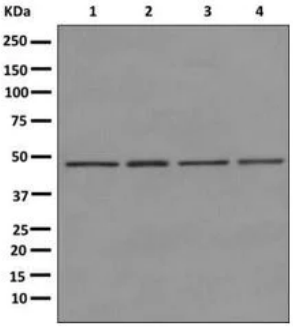
Immunofluorescence analysis of 293 cells labeling AdSS 2 using ab174848 at a 1/50 dilution. DAPI nuclear staining (blue).



Flow Cytometry (Intracellular) - Anti-AdSS 2 antibody [EPR12331-73] (ab174848)

AdSS 2 Flow Cytometry (Intracellular) staining using rabbit Anti-AdSS 2 antibody

Intracellular flow cytometric analysis of permeabilized 293 cells labeling AdSS 2using ab174848 at a 1/10 dilution (red), or a rabbit IgG negative control (green).



Western blot - Anti-AdSS 2 antibody [EPR12331-73] (ab174848)

AdSS 2 Western blot staining using rabbit Anti-AdSS 2 antibody

All lanes:
Western blot - Anti-AdSS 2 antibody [EPR12331-73] (ab174848) at 1/1000 dilution

Lane 1:
293T cell lysate at 10 µg

Lane 2:
HT-1376 cell lysate at 10 µg

Lane 3:
HepG2 cell lysate at 10 µg

Lane 4:
U87-MG cell lysate at 10 µg

Predicted band size: 50 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.