abcam

ab228451

Anti-Folate Receptor 4 antibody [TH6]

Key facts

Isotype	IgG2b
Host species	Rat
Storage buffer	Preservative: 0.05% Sodium azide Constituents: PBS, 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Tissue preparation containing Izumo1r protein. The exact immunogen used to generate this antibody is proprietary information. Database link Q9EQF4
Clone number	TH6
Purification technique	Affinity purification Protein G
Light chain type	kappa
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from TCS.

Reactivity data

Flow Cyt

Tested

Species	Mouse
Dilution info	0.5-1 µg for 10^6 Cells

Notes	-

Target data

See full target information Izumo1r

Function	Receptor for IZUMO1 present at the cell surface of oocytes (oolemma), which is essential for species-specific gamete recognition and fertilization (PubMed:24739963, PubMed:26859261, PubMed:27309808, PubMed:27416963). The IZUMO1:IZUMO1R/JUNO interaction is a necessary adhesion event between sperm and egg that is required for fertilization but is not sufficient for cell fusion (PubMed:24739963, PubMed:26859261, PubMed:27309808). The ligand-receptor interaction probably does not act as a membrane 'fusogen' (PubMed:24739963, PubMed:26859261, PubMed:27309808). Does not bind folate (PubMed:24739963).

Storage

Shipped at conditions	Blue Ice
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

Supplementary info

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

Activity summary	Folate Receptor 4 (FR4) also known as delta folate receptor is involved in the high-affinity binding and transport of folate and folate analogs across the cell membrane. Folate is an essential vitamin B9 derivative which cells use for important functions like DNA synthesis and repair. FR4 has a mass of approximately 30 kilodaltons. Researchers have found this receptor mainly on the surface of activated T cells which play an important role in the immune system.
Biological function summary	FR4 aids in the uptake of folate compounds necessary for cellular proliferation and survival. It is not generally part of a larger protein complex but it competes with other folate receptors like folate receptor alpha for binding to available folate

	molecules. The receptor’s function directly supports T cell activity and survival impacting immune responses.
Pathways	The folate receptor FR4 contributes to immune response pathways by ensuring an adequate supply of folate for T cells. It is a part of the broader folate metabolism pathway which also involves proteins such as dihydrofolate reductase (DHFR) that further process folate for nucleic acid synthesis. This participation in folate metabolism supports not only primary cellular functions but also the specialized activity of immune cells.
Associated diseases and disorders	FR4 is notably associated with autoimmune diseases such as rheumatoid arthritis where abnormal expression levels have been observed in T cells. Also FR4 connects indirectly to cancer as altered folate metabolism can contribute to oncogenesis. Although it functions separately from proteins like thymidylate synthase which is directly involved in cancer proliferation both are part of the overall metabolic pathways impacting disease progression.

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

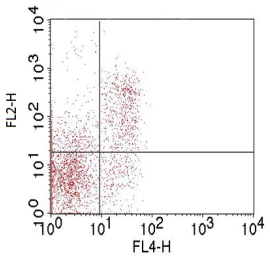
We do not recommend this combination. It is not covered by our product promise.

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

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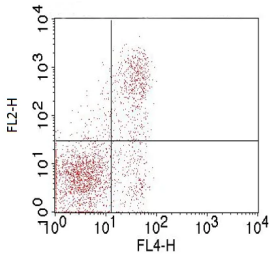
2 product images



Flow Cytometry - Anti-Folate Receptor 4 antibody [TH6] (ab228451)

Folate Receptor 4 Flow Cytometry staining using rat Anti-Folate Receptor 4 antibody

Flow cytometric analysis of mouse splenocytes labeling Folate Receptor 4 with ab228451 at 0.5 µg/10^6 cells.
Cells were first stained with an anti-mCD3 APC conjugated; mCD3 APC positive cells were gated and further analyzed for mouse Folate Receptor 4 using ab228451. Goat anti-Rat PE was used as the secondary antibody.



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Flow cytometric analysis of mouse thymocytes labeling Folate Receptor 4 with ab228451 at 0.5 µg/10^6 cells.
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Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.