



# FADS1 Recombinant Monoclonal Antibody

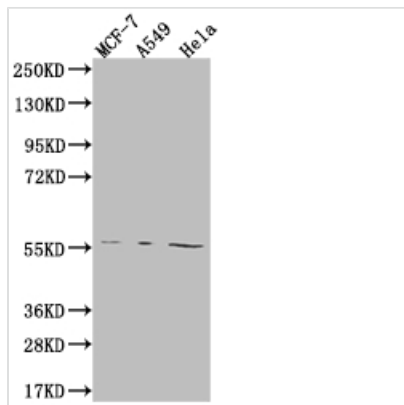
<b>Product Code</b>	CSB-RA155442A0HU
<b>Storage</b>	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
<b>Uniprot No.</b>	O60427
<b>Immunogen</b>	A synthesized peptide derived from human FADS1
<b>Species Reactivity</b>	Human
<b>Tested Applications</b>	ELISA, WB, IHC, IF, FC; Recommended dilution: WB:1:500-1:2000, IHC:1:50-1:200, IF:1:50-1:200, FC:1:50-1:200
<b>Relevance</b>	<p>[Isoform 1]: Acts as a front-end fatty acyl-coenzyme A (CoA) desaturase that introduces a cis double bond at carbon 5 located between a preexisting double bond and the carboxyl end of the fatty acyl chain. Involved in biosynthesis of highly unsaturated fatty acids (HUFA) from the essential polyunsaturated fatty acids (PUFA) linoleic acid (LA) (18:2n-6) and alpha-linolenic acid (ALA) (18:3n-3) precursors. Specifically, desaturates dihomo-gamma-linoleate (DGLA) (20:3n-6) and eicosatetraenoate (ETA) (20:4n-3) to generate arachidonate (AA) (20:4n-6) and eicosapentaenoate (EPA) (20:5n-3), respectively (PubMed:10601301, PubMed:10769175). As a rate limiting enzyme for DGLA (20:3n-6) and AA (20:4n-6)-derived eicosanoid biosynthesis, controls the metabolism of inflammatory lipids like prostaglandin E2, critical for efficient acute inflammatory response and maintenance of epithelium homeostasis. Contributes to membrane phospholipid biosynthesis by providing AA (20:4n-6) as a major acyl chain esterified into phospholipids. In particular, regulates phosphatidylinositol-4,5-bisphosphate levels, modulating inflammatory cytokine production in T-cells (By similarity). Also desaturates (11E)-octadecenoate (trans-vaccenoate)(18:1n-9), a metabolite in the biohydrogenation pathway of LA (18:2n-6) (By similarity). {ECO:0000250 UniProtKB:Q920L1, ECO:0000250 UniProtKB:Q920R3, ECO:0000269 PubMed:10601301, ECO:0000269 PubMed:10769175}; [Isoform 2]: Does not exhibit any catalytic activity toward 20:3n-6, but it may enhance FADS2 activity. {ECO:0000250 UniProtKB:A4UVI1}.</p>
<b>Form</b>	Liquid
<b>Conjugate</b>	Non-conjugated
<b>Storage Buffer</b>	Rabbit IgG in 10mM phosphate buffered saline , pH 7.4, 150mM sodium chloride, 0.05% BSA, 0.02% sodium azide and 50% glycerol.
<b>Purification Method</b>	Affinity-chromatography
<b>Isotype</b>	Rabbit IgG
<b>Clonality</b>	Monoclonal
<b>Product Type</b>	Recombinant Antibody
<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Research Area</b>	Cancer; Cardiovascular; Tags & Cell Markers; Metabolism; Signal transduction



**Target Names** FADS1

**Clone No.** 7A10

**Image**



**Western Blot**

Positive WB detected in: MCF-7 whole cell lysate, A549 whole cell lysate, HeLa whole cell lysate

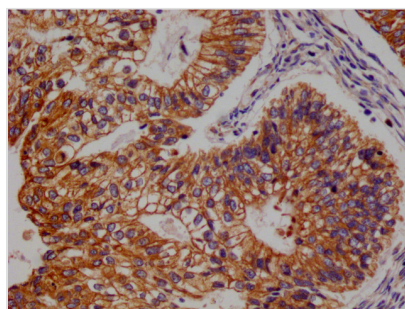
All lanes: FADS1 antibody at 1:2000

Secondary

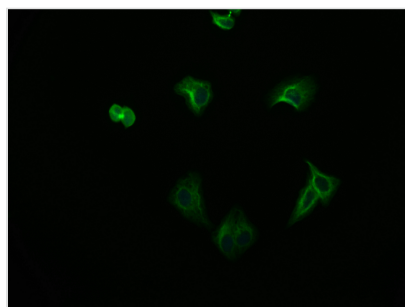
Goat polyclonal to rabbit IgG at 1/50000 dilution

Predicted band size: 52, 43 kDa

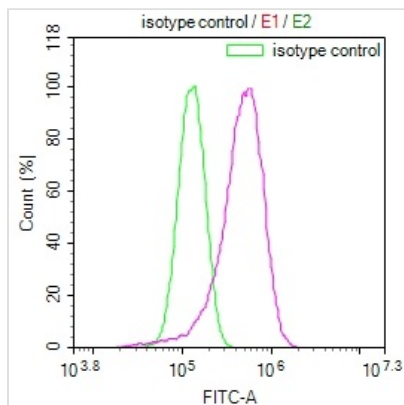
Observed band size: 55 kDa



IHC image of CSB-RA155442A0HU diluted at 1:100 and staining in paraffin-embedded human endometrial cancer performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit polymer IgG labeled by HRP and visualized using 0.05% DAB.



Immunofluorescence staining of HepG2 cell with CSB-RA155442A0HU at 1:50, counter-stained with DAPI. The cells were fixed in 4% formaldehyde and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4°C. The secondary antibody was Alexa Fluor 565-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Overlay Peak curve showing HepG2 cells stained with CSB-RA155442A0HU (red line) at 1:100. The cells were fixed in 4% formaldehyde and permeated by 0.2% TritonX-100. Then 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (1ug/1\*10<sup>6</sup>cells) for 45min at 4?. The secondary antibody used was FITC-conjugated Goat Anti-rabbit IgG(H+L) at 1:200 dilution for 35min at 4?. Control antibody (green line) was rabbit IgG (1ug/1\*10<sup>6</sup>cells) used under the same conditions. Acquisition of >10,000 events was performed.

**Usage**

For Research Use Only. Not for use in diagnostic or therapeutic procedures.