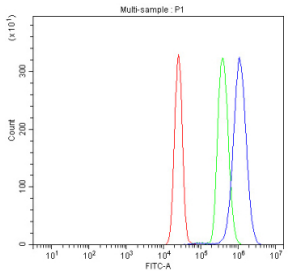
SREBP2 Antibody / SREBF2 (RQ6804)

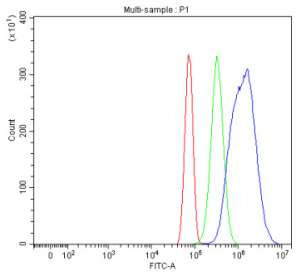
Catalog No.	Formulation	Size
RQ6804	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

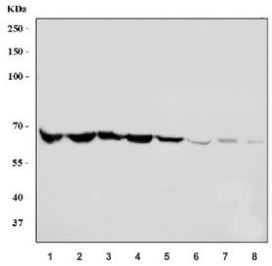
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q12772
Localization	Cytoplasmic, nuclear
Applications	Western Blot : 1-2ug/ml Flow Cytometry : 1-3ug/million cells Direct ELISA : 0.1-0.5ug/ml
Limitations	This SREBP2 antibody is available for research use only.



Flow cytometry testing of human K562 cells with SREBP2 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= SREBP2 antibody.



Flow cytometry testing of rat RH35 cells with SREBP2 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= SREBP2 antibody.



Western blot testing of 1) human ThP-1, 2) human Jurkat, 3) human Raji, 4) human HL60, 5) rat stomach, 6) rat testis, 7) mouse stomach and 8) rat testis tissue lysate with SREBP2 antibody. Predicted molecular weight ~124 kDa but may be observed at higher molecular weights due to glycosylation. The active form of this protein can be observed at 50-68 kDa.

Description

SREBP2 antibody targets sterol regulatory element-binding protein 2, encoded by the SREBF2 gene. Sterol regulatory element-binding protein 2 is a membrane-bound transcription factor that plays a central role in cholesterol homeostasis by regulating genes involved in cholesterol biosynthesis and uptake. SREBP2 belongs to the SREBP family of basic helix-loop-helix leucine zipper transcription factors and is synthesized as an inactive precursor anchored in the endoplasmic reticulum membrane.

Functionally, SREBP2 is activated through regulated proteolytic cleavage in response to cellular sterol depletion. Upon activation, the N-terminal transcriptionally active fragment translocates to the nucleus, where it binds sterol regulatory elements in the promoters of target genes such as HMGCR, HMGCS1, and LDLR. Through this mechanism, SREBP2 coordinates transcriptional programs that maintain intracellular cholesterol levels. A SREBP2 antibody supports studies focused on lipid metabolism, transcriptional regulation, and sterol-sensitive signaling pathways.

SREBF2 expression is widespread, reflecting the fundamental requirement for cholesterol regulation in most cell types. Subcellular localization is dynamic, with the full-length precursor localized to the endoplasmic reticulum and Golgi membranes, while the processed active form localizes to the nucleus. This dual localization pattern reflects the tightly controlled activation process that links membrane lipid status to nuclear gene expression.

From a disease relevance perspective, dysregulation of SREBP2 signaling has been implicated in metabolic disorders, cardiovascular disease, and cancer, where altered cholesterol metabolism can support abnormal cell growth and survival. At the molecular level, sterol regulatory element-binding protein 2 contains a basic helix-loop-helix leucine zipper DNA-binding domain and regulatory regions that control sterol-dependent activation. SREBP2 antibody reagents support research applications examining lipid metabolic pathways and transcriptional responses to cholesterol availability, with NSJ Bioreagents providing reagents intended for research use.

Application Notes

Optimal dilution of the SREBP2 antibody should be determined by the researcher.

Immunogen

Recombinant human protein (amino acids R371-L409) was used as the immunogen for the SREBP2 antibody.

Storage

After reconstitution, the SREBP2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at

-20oC. Avoid repeated freezing and thawing.