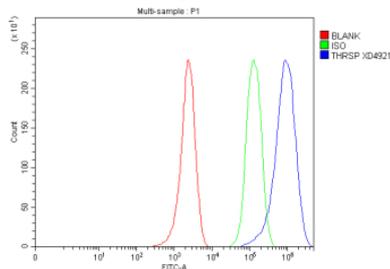


THRSP Antibody / Thyroid hormone-responsive protein (FY12236)

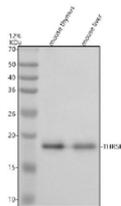
Catalog No.	Formulation	Size
FY12236	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

[Bulk quote request](#)

Availability	1-2 days
Species Reactivity	Human, Mouse
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
UniProt	Q92748
Applications	Western Blot : 0.25-0.5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
Limitations	This THRSP antibody is available for research use only.



Flow Cytometry analysis of MCF-7 cells using anti-THRSP antibody. Overlay histogram showing MCF-7 cells stained with (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-THRSP antibody (1 ug/million cells) for 30 min at 20°C. DyLight 488 conjugated goat anti-rabbit IgG (5-10 ug/million cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/million cells) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Western blot analysis of THRSP using anti-THRSP antibody. Electrophoresis was performed on a 12% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: mouse thymus tissue lysates, Lane 2: mouse liver tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-THRSP antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using an ECL Plus Western Blotting Substrate. A specific band was detected for THRSP at approximately 17 kDa. The expected band size for THRSP is at 17 kDa.

Description

THRSP antibody detects Thyroid hormone-responsive protein, encoded by the THRSP gene on chromosome 11q13.5. THRSP antibody is widely applied in studies of lipid metabolism, endocrine regulation, and cancer biology. THRSP, also known as Spot14, is a nuclear protein induced by thyroid hormone and carbohydrate feeding. It is highly expressed in liver, adipose tissue, and lactating mammary gland, where it regulates lipogenesis by controlling transcription of lipogenic enzymes. In humans, THRSP expression correlates with metabolic state and hormonal regulation, making it a valuable marker for metabolic research.

Structurally, THRSP is a ~17 kDa acidic nuclear protein that lacks enzymatic activity but functions as a transcriptional regulator. It contains nuclear localization sequences and DNA-binding domains that interact with chromatin and transcription factors. Its regulation is tightly linked to nutritional and hormonal status, with strong induction by triiodothyronine (T3), glucose, and insulin.

Functionally, THRSP promotes lipogenesis by enhancing expression of genes such as fatty acid synthase and acetyl-CoA carboxylase. It plays an important role in lactation, where increased lipogenesis supports milk production. In liver, THRSP regulates triglyceride synthesis and influences lipid storage. Overexpression of THRSP drives lipid accumulation, while deficiency impairs lipid biosynthesis. Researchers use THRSP antibody to investigate lipid metabolism, endocrine signaling, and mammary gland physiology.

Clinically, THRSP is associated with metabolic diseases and cancer. Dysregulated THRSP expression contributes to obesity, fatty liver disease, and breast cancer. Elevated expression in breast tumors correlates with lipogenic phenotype and worse prognosis. As a hormone-responsive gene, THRSP also serves as a biomarker of thyroid hormone activity and metabolic adaptation. NSJ Bioreagents provides THRSP antibody for studies in metabolism, endocrinology, and oncology.

Experimentally, THRSP antibody is used in western blotting to detect the ~17 kDa protein, in immunohistochemistry to study expression in liver and mammary gland, and in immunofluorescence to analyze nuclear localization. Co-immunoprecipitation with THRSP antibody identifies chromatin-associated complexes involved in lipogenic gene regulation.

Application Notes

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

Immunogen

E.coli-derived human THRSP recombinant protein (Position: M1-W146) was used as the immunogen for the THRSP antibody.

Storage

After reconstitution, the THRSP antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.