abcam

ab227689

Anti-TROP2 antibody [SP293] - C-terminal

Anti-TROP2 antibody [SP293] - C-terminal (ab227689) is a rabbit monoclonal antibody detecting TROP2 in **Western Blot, Flow Cytometry (Intra), IHC-P**. Suitable for **Human, Mouse**.

- Biophysical QC for unrivalled batch-batch consistency

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.6 Preservative: 0.1% Sodium azide Constituents: PBS, 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	SP293
Purification technique	Affinity purification Protein A/G
Purification notes	Purified from TCS by protein A/G.

Reactivity data

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/100
Notes	-

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

Species	Mouse
Dilution info	1/100
Notes	-

Species	Human
Dilution info	1/100
Notes	-

IHC-P

Tested

Species	Mouse
Dilution info	1/100
Notes	Boil tissue section in EDTA buffer pH 8.0 for 10 minutes followed by cooling at room temperature for 20 minutes. Incubate with primary antibody for 10 minutes at room temperature.

Species	Human
Dilution info	1/100
Notes	Boil tissue section in EDTA buffer pH 8.0 for 10 minutes followed by cooling at room temperature for 20 minutes. Incubate with primary antibody for 10 minutes at room temperature.

Target data

See full target information TACSTD2

Function	May function as a growth factor receptor.

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

What is this antibody validated in?
Anti-TROP2 antibody [SP293] - C-terminal (ab227689) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Flow Cytometry (Flow Cyt), Immunohistochemistry (IHC-P) in Human, Mouse samples.

What is the molecular weight of TROP2?
Anti-TROP2 [SP293] - C-terminal (ab227689) specifically detects a band for TROP2 (UniProt: P09758) at a molecular weight of 36kDa.

Collaboration
Anti-TROP2 [SP293] - C-terminal (ab227689) is a clone from the portfolio of Spring Bioscience (Roche) SP clones which have been optimised for immunohistochemistry (IHC).

Other related products
We have a range of other formats of antibody clone [SP293] also available for your convenience: ab227689, Carrier free - ab272014, PE - ab306220, APC - ab306221, HRP - ab306222, Alkaline Phosphatase - ab309002, Alexa Fluor® 488 - ab309944, Alexa Fluor® 647 - ab310311, Alexa Fluor® 594 - ab310775, Alexa Fluor® 555 - ab312301, Alexa Fluor® 568 - ab312797, Alexa Fluor® 750 - ab321453

Supplementary info

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

Activity summary	TROP2 also known as TACSTD2 or tumor-associated calcium signal transducer 2 is a single-pass type I membrane glycoprotein. This protein is about 35 kDa in mass

	and primarily expresses in epithelial tissues. It acts as a transmembrane receptor that plays a role in signal transduction due to its domain structure binding and activation processes on the cell surface. TROP2 exhibits high expression in several types of tumors making it a potential target for therapeutic antibodies like anti-TROP2 anti trop2 or anti-TROP-2.
Biological function summary	TROP2 mediates calcium signaling and cell proliferation. It functions by being a part of a signaling complex on the cell membrane which affects multiple cellular activities such as cell growth motility and survival. Its role in maintaining the integrity of the epithelial cell layer also shows TROP2's significance in normal tissue homeostasis. The interaction of TROP2 with the extracellular matrix and other cell surface proteins support the structural integrity and communication between cells.
Pathways	TROP2 plays a central role in the PI3K/AKT and MAPK signaling pathways that regulate cell growth and survival. Within these pathways TROP2 works in concert with proteins like ERK and AKT important for transmitting extracellular signals into appropriate cellular responses. These pathways are key regulators of many physiological processes including cell cycle progression and apoptosis prevention.
Associated diseases and disorders	TROP2 is strongly associated with several types of cancers particularly epithelial cancers like breast and pancreatic cancer. Overexpression of TROP2 in tumors often correlates with poor prognosis and aggressive disease phenotypes. Interaction between TROP2 and proteins like EGFR in cancer cell signaling pathways amplifies tumor progression and metastasis. Understanding these associations makes TROP2 a significant target in developing therapeutic strategies for cancer treatment.

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

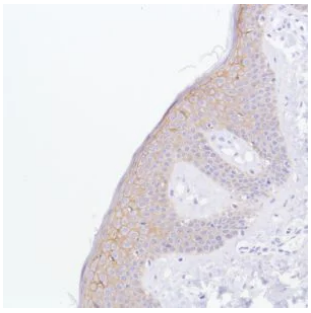
We do not recommend this combination. It is not covered by our product promise.

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.

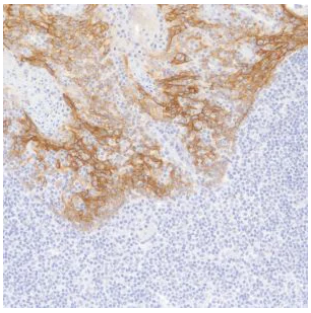
15 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TROP2 antibody [SP293] - C-terminal (ab227689)

TROP2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-TROP2 antibody

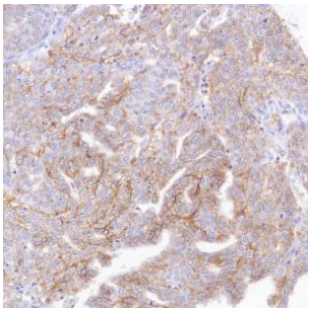
Formalin-fixed paraffin-embedded human skin tissue stained for TROP2 using ab227689 at 1/100 dilution in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TROP2 antibody [SP293] - C-terminal (ab227689)

TROP2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-TROP2 antibody

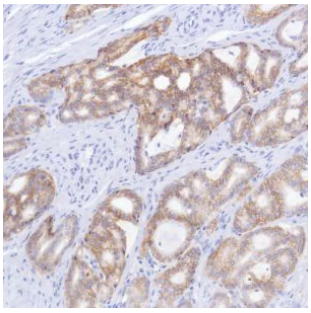
Formalin-fixed paraffin-embedded human tonsil tissue stained for TROP2 using ab227689 at 1/100 dilution in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TROP2 antibody [SP293] - C-terminal (ab227689)

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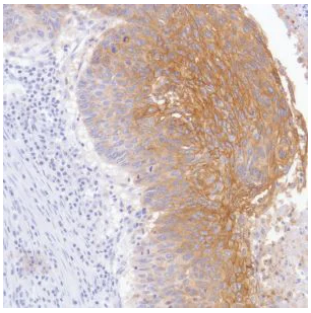
Formalin-fixed paraffin-embedded human ovarian adenocarcinoma tissue stained for TROP2 using ab227689 at 1/100 dilution in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TROP2 antibody [SP293] - C-terminal (ab227689)

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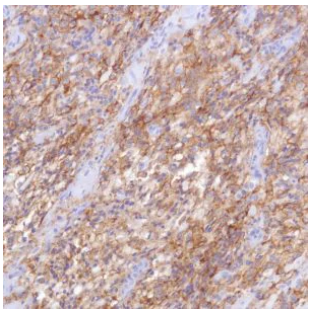
Formalin-fixed paraffin-embedded human prostate adenocarcinoma tissue stained for TROP2 using ab227689 at 1/100 dilution in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TROP2 antibody [SP293] - C-terminal (ab227689)

TROP2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-TROP2 antibody

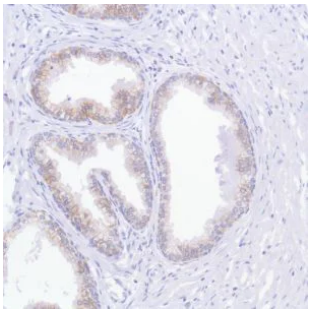
Formalin-fixed paraffin-embedded human lung squamous cell carcinoma tissue stained for TROP2 using ab227689 at 1/100 dilution in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TROP2 antibody [SP293] - C-terminal (ab227689)

TROP2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-TROP2 antibody

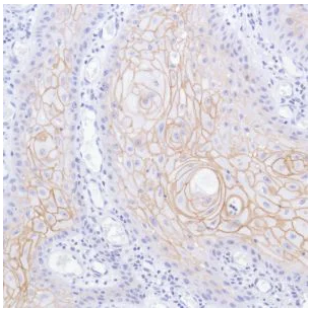
Formalin-fixed paraffin-embedded human prostate adenocarcinoma tissue stained for TROP2 using ab227689 at 1/100 dilution in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TROP2 antibody [SP293] - C-terminal (ab227689)

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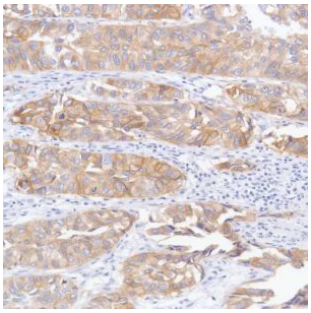
Formalin-fixed paraffin-embedded human prostate tissue stained for TROP2 using ab227689 at 1/100 dilution in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TROP2 antibody [SP293] - C-terminal (ab227689)

TROP2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-TROP2 antibody

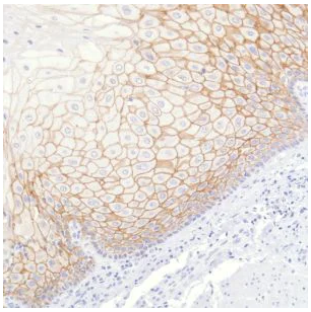
Formalin-fixed paraffin-embedded human skin squamous cell carcinoma tissue stained for TROP2 using ab227689 at 1/100 dilution in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TROP2 antibody [SP293] - C-terminal (ab227689)

TROP2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-TROP2 antibody

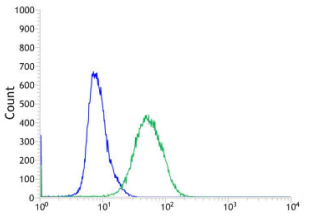
Formalin-fixed paraffin-embedded human bladder transitional cell carcinoma tissue stained for TROP2 using ab227689 at 1/100 dilution in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TROP2 antibody [SP293] - C-terminal (ab227689)

TROP2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-TROP2 antibody

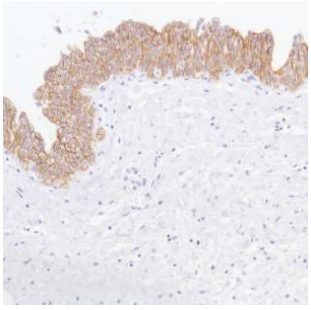
Formalin-fixed paraffin-embedded human esophagus tissue stained for TROP2 using ab227689 at 1/100 dilution in immunohistochemical analysis.



Flow Cytometry (Intracellular) - Anti-TROP2 antibody [SP293] - C-terminal (ab227689)

TROP2 Flow Cytometry (Intracellular) staining using rabbit Anti-TROP2 antibody

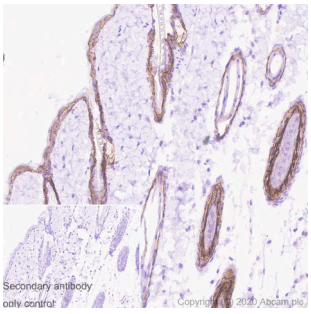
Flow Cytometry analysis of SK-BR-3 (human mammary gland adenocarcinoma cell line) cells, labeling TROP2 with ab227689 at 1/100 dilution (green) compared to a Rabbit IgG negative control (blue).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TROP2 antibody [SP293] - C-terminal (ab227689)

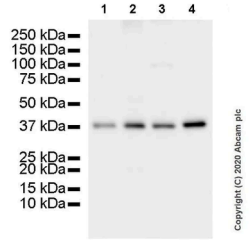
TROP2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-TROP2 antibody

Formalin-fixed paraffin-embedded human bladder tissue stained for TROP2 using ab227689 at 1/100 dilution in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TROP2 antibody [SP293] - C-terminal (ab227689)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse skin tissue labelling TROP2 with ab227689 at 1/50 dilution. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9 for 20 minutes. The section was incubated with ab227689 for 10 mins at room temperature. The Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used. Membranous staining on the mouse skin. Performed on a Leica Biosystems BOND® RX instrument. Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.



Western blot - Anti-TROP2 antibody [SP293] - C-terminal (ab227689)

Blocking/Diluting buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-TROP2 antibody [SP293] - C-terminal (ab227689) at 1/100 dilution

Lane 1:
bEnd.3 (mouse brain endothelioma) whole cell lysate at 20 µg

Lane 2:
4T1 (mouse mammary gland carcinoma epithelial cell) whole cell lysate at 20 µg

Lane 3:
LLC1 (mouse lung carcinoma) whole cell lysate at 20 µg

Lane 4:
B16F10 (Mouse skin melanoma) whole cell lysate at 20 µg

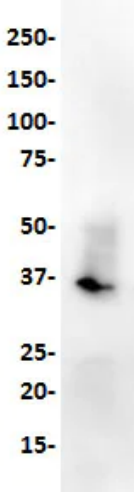
Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 36 kDa

Observed band size: 37 kDa

Exposure time: 10s



Western blot - Anti-TROP2 antibody [SP293] - C-terminal (ab227689)

All lanes:
Western blot - Anti-TROP2 antibody [SP293] - C-terminal (ab227689) at 1/100 dilution

All lanes:
SK-BR-3 (human mammary gland adenocarcinoma cell line) cell lysate

Predicted band size: 36 kDa

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