

TACR1 Monoclonal Antibody (ZN003)

Catalog Number39-6100

Product data sheet

Details		Species Reactivity	
Size	100 µg	Species reactivity	Human, Insect, Mouse, Rat
Host/Isotope	Mouse / IgG1, kappa	Published species	Mammal, Mouse, Human
Class	Monoclonal	Tested Applications	
Type	Antibody	ELISA (ELISA)	Dilution * Assay-dependent
Clone	ZN003	Western Blot (WB)	1 µg/mL
Immunogen	Synthetic peptide derived from an internal sequence of the human, mouse, and rat NK1 receptor proteins	Immunocytochemistry (ICC/IF)	2 µg/mL
		Published Applications	
Conjugate	Unconjugated	Immunocytochemistry (ICC/IF)	See 2 publications below
Form	Liquid	Flow Cytometry (Flow)	See 1 publications below
Concentration	0.5 mg/mL	Western Blot (WB)	See 2 publications below
Purification	Protein A	* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.	
Storage buffer	PBS, pH 7.4		
Contains	0.1% sodium azide		
Storage Conditions	-20°C		

Background/Target Information

Tachykinin Receptor 1, a member of the Tachykinin Receptor subfamily, is involved in the mediation of phosphatidylinositol metabolism by the tachykinin substance P, also referred to as neurokinin 1. It is associated with the management of depression, anxiety, and stress. It is also involved in regulating behavioral responses, neuronal survival, and cardiovascular and respiratory functions. The tachykinin receptor 1 is implicated in the progression of rheumatoid arthritis and osteoarthritis. Two variants of the tachykinin receptor 1 are produced by alternative splicing. Tachykinin receptor 1 has been reported primarily in brain, and in blood lymphocytes, nose, small intestine, and stomach. ESTs have been isolated from brain and spleen libraries.

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization.

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization.

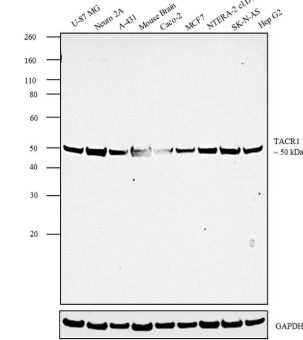
Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample.

NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON-INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (i) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (ii) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (iii) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (iv) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.

Product Images For TACR1 Monoclonal Antibody (ZN003)

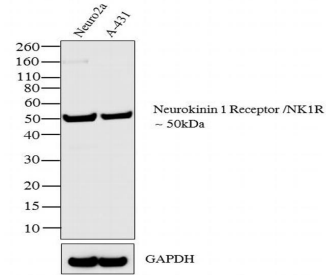
TACR1 Antibody (39-6100) in WB

Western blot analysis was performed on whole cell extracts (30 µg lysate) of U-87 MG (Lane 1), Neuro-2A (Lane 2), A-431 (Lane 3), tissue extract of Mouse Brain (Lane 4), whole cell extracts of Caco-2 (Lane 5), MCF7 (Lane 6), NTERA-2 cl,D1 (Lane 7), SK-N-AS (Lane 8) and Hep G2 (Lane 9). The blot was probed with Anti- TACR1 Monoclonal Antibody (ZN003) (Product # 39-6100, 1µg/ml) and detected by chemiluminescence using Goat anti-Mouse IgG (H+L) Superclonal™ Secondary Antibody, HRP conjugate (Product # A28177, 0.25µg/ml, 1:4000 dilution). A 50 kDa band corresponding to TACR1 was observed across the cell lines and tissue tested.



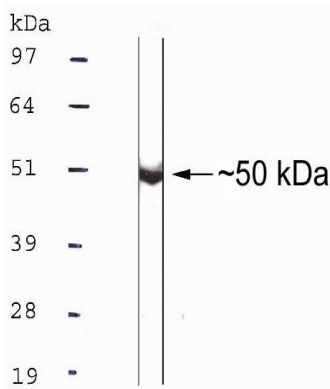
TACR1 Antibody (39-6100) in WB

Western blot analysis was performed on membrane enriched extracts (30 µg lysate) of Neuro-2a (Lane 1) and A-431 (Lane 2). The blots were probed with Anti-Neurokinin 1 Receptor/NK1R Mouse Monoclonal Antibody (Product # 39-6100, 2 µg/mL) and detected by chemiluminescence using Goat anti-Mouse IgG (H+L) Superclonal™ Secondary Antibody, HRP conjugate (Product # A28177, 0.4 µg/mL, 1:2500 dilution). A 50 kDa band corresponding to Neurokinin 1 Receptor/NK1R was observed across the cell lines tested. Known quantity of protein samples were electrophoresed using Novex® NuPAGE® 10 % Bis-Tris gel (Product # NP0302BOX), XCell SureLock™ Electrophoresis System (Product # EI0002) and Novex® Sharp Pre-Stained Protein Standard (Product # LC5800). Resolved proteins were then transferred onto a nitrocellulose membrane with iBlot® 2 Dry Blotting System (Product # IB21001). The membrane was probed with the relevant primary and secondary Antibody following blocking with 5 % skimmed milk. Chemiluminescent detection was performed using Pierce™ ECL Western Blotting Substrate (Product # 32106).



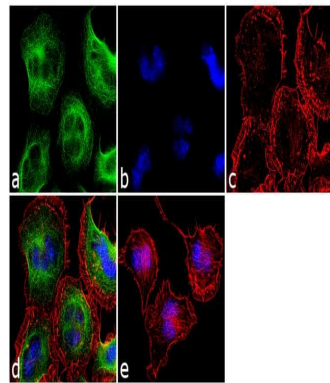
TACR1 Antibody (39-6100) in WB

Western blot analysis of SF9 cell lysates using Zymed Ms anti-NK1 Receptor (Product # 39-6100).



TACR1 Antibody (39-6100) in ICC/IF

Immunofluorescence analysis of Neurokinin 1 Receptor / NK1R Receptor was performed using 90% confluent log phase Neuro 2a cells. The cells were fixed with 4% paraformaldehyde for 10 minutes, permeabilized with 0.1% Triton™ X-100 for 10 minutes, and blocked with 1% BSA for 1 hour at room temperature. The cells were labeled with Neurokinin 1 Receptor / NK1R (ZN003) Mouse Monoclonal Antibody (Product # 39-6100) at 2µg/mL in 0.1% BSA and incubated for 3 hours at room temperature and then labeled with Goat anti-Mouse IgG (H+L) Superclonal™ Secondary Antibody, Alexa Fluor® 488 conjugate (Product # A28175) at a dilution of 1:2000 for 45 minutes at room temperature (Panel a: green). Nuclei (Panel b: blue) were stained with SlowFade® Gold Antifade Mountant with DAPI (Product # S36938). F-actin (Panel c: red) was stained with Alexa Fluor® 555 Rhodamine Phalloidin (Product # R415, 1:300). Panel d represents the merged image showing membranous and cytoplasmic localization. Panel e shows the no primary antibody control. The images were captured at 60X magnification.



For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization.

Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample.

NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON-INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (i) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (ii) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (iii) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (iv) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.

PubMed References For TACR1 Monoclonal Antibody (ZN003)

2 Immunocytochemistry References

Species / Dilution	Summary
Human / Not Cited	39-6100 was used in Immunocytochemistry-immunofluorescence to study the interaction of substance P and the neurokinin-1 receptor in causing damaging neuroinflammation.
	Journal of neuroinflammation (2017; 14:) "Human microglia and astrocytes constitutively express the neurokinin-1 receptor and functionally respond to substance P." Author(s):Burmeister AR,Johnson MB,Chauhan VS,Moerdyk-Schauwecker MJ,Young AD,Cooley ID,Martinez AN, Ramesh G,Philipp MT,Marriott I PubMed Article URL: http://dx.doi.org/10.1186/s12974-017-1012-5
Mouse / 1:10000	39-6100 was used in Immunocytochemistry to clarify whether a mouse model of PD could develop central brainstem and lung respiratory abnormalities.
	Experimental physiology (2019; 104: 729) "Respiratory disturbances in a mouse model of Parkinson's disease." Author(s):Oliveira LM,Oliveira MA,Moriya HT,Moreira TS,Takakura AC PubMed Article URL: http://dx.doi.org/10.1113/EP087507

1 Flow Cytometry References

Species / Dilution	Summary
Human / Not Cited	39-6100 was used in Immunocytochemistry-immunofluorescence to study the interaction of substance P and the neurokinin-1 receptor in causing damaging neuroinflammation.
	Journal of neuroinflammation (2017; 14:) "Human microglia and astrocytes constitutively express the neurokinin-1 receptor and functionally respond to substance P." Author(s):Burmeister AR,Johnson MB,Chauhan VS,Moerdyk-Schauwecker MJ,Young AD,Cooley ID,Martinez AN, Ramesh G,Philipp MT,Marriott I PubMed Article URL: http://dx.doi.org/10.1186/s12974-017-1012-5

2 Western Blot References

Species / Dilution	Summary
Human / Not Cited	39-6100 was used in Immunocytochemistry-immunofluorescence to study the interaction of substance P and the neurokinin-1 receptor in causing damaging neuroinflammation.
	Journal of neuroinflammation (2017; 14:) "Human microglia and astrocytes constitutively express the neurokinin-1 receptor and functionally respond to substance P." Author(s):Burmeister AR,Johnson MB,Chauhan VS,Moerdyk-Schauwecker MJ,Young AD,Cooley ID,Martinez AN, Ramesh G,Philipp MT,Marriott I PubMed Article URL: http://dx.doi.org/10.1186/s12974-017-1012-5
Mammal / Not Cited	39-6100 was used in western blot to study the activation of brain stem PKA in vomiting least shrews treated with the emetic compound cyclophosphamide.
	European journal of pharmacology (2014; 722: 156) "Cyclophosphamide causes activation of protein kinase A (PKA) in the brainstem of vomiting least shrews (Cryptotis parva)." Author(s):Alkam T,Chebolu S,Darmani NA PubMed Article URL: http://dx.doi.org/10.1016/j.ejphar.2013.09.080

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization.

Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample.

NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON-INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (i) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (ii) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (iii) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (iv) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.