

## ARG54949 anti-ULK3 antibody

Package: 50 µg  
Store at: -20°C

### Summary

Product Description	Rabbit Polyclonal antibody recognizes ULK3
Tested Reactivity	Hu
Tested Application	ELISA, ICC/IF, IHC-P, WB
Specificity	ULK3 antibody is human specific. Multiple isoforms of ULK3 are known to exist.
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	ULK3
Species	Human
Immunogen	Synthetic peptide (19 aa) within aa. 230-280 of Human ULK3.
Conjugation	Un-conjugated
Alternate Names	EC 2.7.11.1; Unc-51-like kinase 3; Serine/threonine-protein kinase ULK3

### Application Instructions

Application table	Application	Dilution
	ELISA	Assay-dependent
	ICC/IF	20 µg/ml
	IHC-P	Assay-dependent
	WB	0.5 - 1 µg/ml
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	Human Brain Tissue Lysate	

### Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	PBS and 0.02% Sodium azide
Preservative	0.02% Sodium azide
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed

before use.

#### Note

For laboratory research only, not for drug, diagnostic or other use.

## Bioinformation

#### Database links

[GeneID: 25989 Human](#)

[Swiss-port # Q6PHR2 Human](#)

#### Gene Symbol

ULK3

#### Gene Full Name

unc-51 like kinase 3

#### Background

ULK3 belongs to the Ser/Thr protein kinase superfamily and plays a role in the ATP-dependent phosphorylation of target proteins. Knockout of ULK genes results in a severe defect in the autophagy pathway. ULK3, like the other Unc-51-like kinases such as ULK1, ULK2 and ULK4, is highly conserved among eukaryotes. ULK3 has been shown to be a positive regulator of the Hedgehog signaling pathway by enhancing GLI1 and GLI2 transcriptional activity. Furthermore, ULK3 can also interact with SUFU, a protein required for the negative regulation of GLI proteins; this interaction blocks the autophosphorylation of ULK3 and blocks its ability to regulate the GLI proteins.

#### Function

Serine/threonine protein kinase that acts as a regulator of Sonic hedgehog (SHH) signaling and autophagy. Acts as a negative regulator of SHH signaling in the absence of SHH ligand: interacts with SUFU, thereby inactivating the protein kinase activity and preventing phosphorylation of GLI proteins (GLI1, GLI2 and/or GLI3). Positively regulates SHH signaling in the presence of SHH: dissociates from SUFU, autophosphorylates and mediates phosphorylation of GLI2, activating it and promoting its nuclear translocation. Phosphorylates in vitro GLI2, as well as GLI1 and GLI3, although less efficiently. Also acts as a regulator of autophagy: following cellular senescence, able to induce autophagy. [UniProt]

#### Research Area

Signaling Transduction antibody

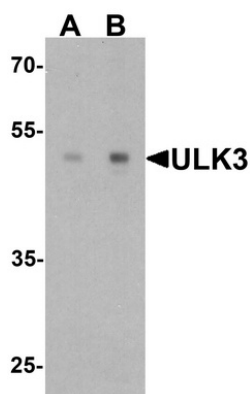
#### Calculated Mw

53 kDa

#### PTM

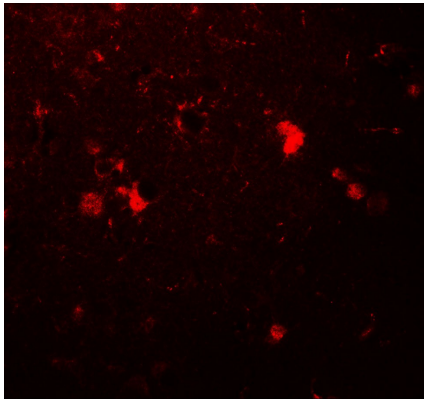
Autophosphorylated. Autophosphorylation is blocked by interaction with SUFU.

## Images



ARG54949 anti-ULK3 antibody WB image

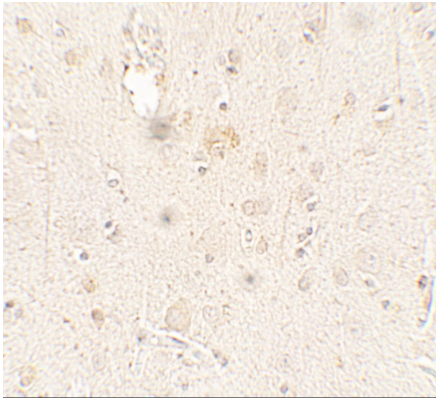
Western blot: human brain tissue lysate stained with ARG54949 anti-ULK3 antibody at (A) 0.5 and (B) 1 ug/ml dilution.



ARG54949 anti-ULK3 antibody IHC image

Immunohistochemistry: ULK3 in human brain tissue stained with ARG54949 anti-ULK3 antibody at 20 µg/ml dilution.

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ARG54949 anti-ULK3 antibody IHC image

Immunohistochemistry: ULK3 in human brain tissue stained with ARG54949 anti-ULK3 antibody at 5 µg/ml dilution.

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