

**Goat Anti-Alfy / WDFY3 Antibody (internal region)**  
**Purified Goat Polyclonal Antibody**  
**Catalog # AF4194a****Specification**

---

**Goat Anti-Alfy / WDFY3 Antibody (internal region) - Product Information**

|                   |  |
|-------------------|--|
| Application       | WB, E  |
| Primary Accession | <a href="#">O8IZO1</a>   |
| Other Accession   | <a href="#">72145(mouse)</a> , <a href="#">305164(rat)</a> , <a href="#">NP_055806.2</a> |
| Reactivity        | Mouse  |
| Predicted         | Human, Mouse, Rat  |
| Host              | Goat   |
| Clonality         | Polyclonal   |
| Concentration     | 0.5  |
| Calculated MW     | 395258   |

**Goat Anti-Alfy / WDFY3 Antibody (internal region) - Additional Information****Gene ID** 23001**Other Names**

WDFY3; WD repeat and FYVE domain containing 3; ALFY; ZFYVE25; WD repeat and FYVE domain-containing protein 3; autophagy-linked FYVE protein

**Dilution**

WB~~1:1000

E~~N/A

**Format**

Supplied at 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin. Aliquot and store at -20°C. Minimize freezing and thawing.

**Immunogen**

Peptide with sequence C-SPERSTRTQQKEFQT, from the internal region of the protein sequence according to NP\_055806.2.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Goat Anti-Alfy / WDFY3 Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

**Goat Anti-Alfy / WDFY3 Antibody (internal region) - Protein Information****Name** WDFY3

**Synonyms** KIAA0993**Function**

Required for selective macroautophagy (aggrephagy). Acts as an adapter protein by linking specific proteins destined for degradation to the core autophagic machinery members, such as the ATG5- ATG12-ATG16L E3-like ligase, SQSTM1 and LC3 (PubMed:<a href="http://www.uniprot.org/citations/20417604" target="\_blank">20417604</a>). Along with p62/SQSTM1, involved in the formation and autophagic degradation of cytoplasmic ubiquitin-containing inclusions (p62 bodies, ALIS/aggresome-like induced structures). Along with SQSTM1, required to recruit ubiquitinated proteins to PML bodies in the nucleus (PubMed:<a href="http://www.uniprot.org/citations/20168092" target="\_blank">20168092</a>). Important for normal brain development. Essential for the formation of axonal tracts throughout the brain and spinal cord, including the formation of the major forebrain commissures. Involved in the ability of neural cells to respond to guidance cues. Required for cortical neurons to respond to the trophic effects of netrin-1/NTN1 (By similarity). Regulates Wnt signaling through the removal of DVL3 aggregates, likely in an autophagy-dependent manner. This process may be important for the determination of brain size during embryonic development (PubMed:<a href="http://www.uniprot.org/citations/27008544" target="\_blank">27008544</a>). May regulate osteoclastogenesis by acting on the TNFSF11/RANKL - TRAF6 pathway (By similarity). After cytokinetic abscission, involved in midbody remnant degradation (PubMed:<a href="http://www.uniprot.org/citations/24128730" target="\_blank">24128730</a>). In vitro strongly binds to phosphatidylinositol 3-phosphate (PtdIns3P) (PubMed:<a href="http://www.uniprot.org/citations/15292400" target="\_blank">15292400</a>).

**Cellular Location**

Nucleus membrane. Cytoplasm, cytosol. Nucleus, PML body. Membrane; Peripheral membrane protein; Cytoplasmic side Perikaryon {ECO:0000250|UniProtKB:Q6VNB8}. Cell projection, axon {ECO:0000250|UniProtKB:Q6VNB8}. Note=Relocalization from the nucleus to the cytosol is stimulated by cellular stress, such as starvation or proteasomal inhibition. In the cytosol of starved cells, colocalizes with autophagic structures (PubMed:15292400, PubMed:20168092, PubMed:20417604, PubMed:20971078). This redistribution is dependent on p62/SQSTM1 (PubMed:20168092). When nuclear export is blocked by treatment with leptomycin B, accumulates in nuclear bodies, that completely or partially colocalize with promyelocytic leukemia (PML) bodies (PubMed:20168092). Localizes throughout neurons, including within axons. In neurons, enriched in the light membrane fraction along with the synaptosomal membrane protein synaptophysin and the membrane- bound form of LC3/MAP1LC3A/MAP1LC3B, called LC3-II, a classic marker for autophagic vesicles (By similarity). {ECO:0000250|UniProtKB:Q6VNB8, ECO:0000269|PubMed:15292400, ECO:0000269|PubMed:20168092, ECO:0000269|PubMed:20417604, ECO:0000269|PubMed:20971078}

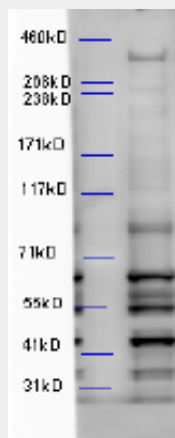
**Tissue Location**

Expressed in osteoclast and their mononuclear precursors (at protein level).

**Goat Anti-Alfy / WDFY3 Antibody (internal region) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Goat Anti-Alfy / WDFY3 Antibody (internal region) - Images**

AF4194a (5 µg/ml) staining of Mouse Brain lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

**Goat Anti-Alfy / WDFY3 Antibody (internal region) - References**

Alfy-dependent elimination of aggregated proteins by macroautophagy: can there be too much of a good thing? Yamamoto A, Simonsen A. Autophagy 2011 Mar 7 (3): 346-50.