

## Product datasheet for **TA336527**

### 5 Lipoxygenase (ALOX5) Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	ICC/IF, WB
Recommended Dilution:	Knockdown Validated, Immunocytochemistry/ Immunofluorescence: 1:500 - 1:2000, Western Blot: 1:500-1:1000, Simple Western: 50 ug/ml
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	A synthetic peptide made to a region within residues 100-200 of human 5-Lipoxygenase. [Swiss-Prot# P09917]
Formulation:	PBS, 30% glycerol, 0.1% Sodium Azide. Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Immunogen affinity purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	80 kDa
Gene Name:	arachidonate 5-lipoxygenase
Database Link:	<a href="#">NP_000689</a> <a href="#">Entrez Gene 11689 Mouse</a> <a href="#">Entrez Gene 240 Human</a> <a href="#">P09917</a>



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**Background:** 5-lipoxygenase (5LO) is a pro-inflammatory enzyme widely expressed in CNS where its level increases in an age-dependent manner and its activity is regulated by the presence/availability of FLAP (5LO activating protein) that form a functional complex with 5LO to catalyze arachidonic acid oxidation to produce lipid molecules with complex signaling properties such as leukotrienes. Reaction catalyzed by 5LO is considered as first step in the leukotriene biosynthesis and it is highly critical to inflammatory processes. Moreover, knockout of 5LO as well as FLAP has been shown to result in anxiety-like behavior in mice and 5LO is emerging as a new active player in Alzheimer's disease (AD) pathogenesis. 5LO levels are significantly increased in AD postmortem brain tissues and its genetic absence or pharmacological blockade both result in a significant reduction in the abeta levels as well as deposition in a transgenic mouse model of AD-like amyloidosis (i.e., Tg2576) mice.

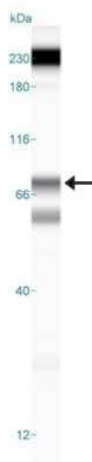
**Synonyms:** 5-LO; 5-LOX; 5LPG; LOG5

**Note:** This 5 Lipoxygenase antibody is useful for Immunocytochemistry/Immunofluorescence and Western Blot, where a band is seen at ~80 kDa. There may be some non-specific bands at non-interfering lower molecular weights. In ICC/IF cytoplasmic staining was observed in Hela cells.

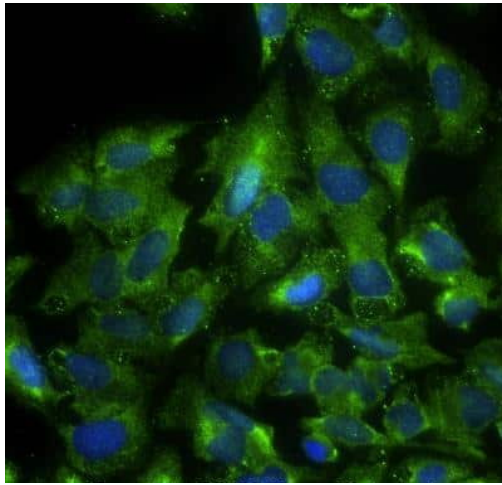
**Protein Families:** Druggable Genome

**Protein Pathways:** Arachidonic acid metabolism, Metabolic pathways

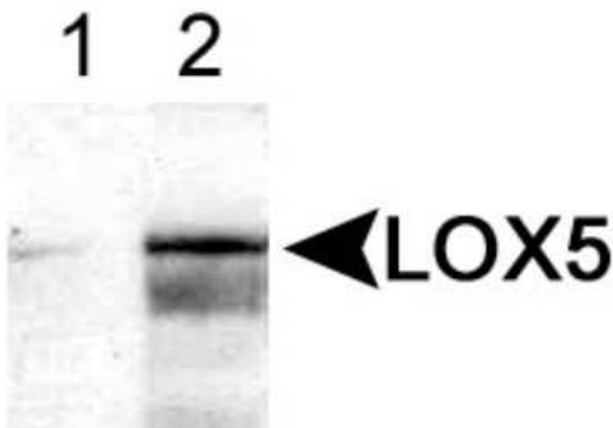
### Product images:



Simple Western: 5-Lipoxygenase Antibody TA336527 - Simple Western lane view shows a specific band for 5-Lipoxygenase in 0.5 mg/ml of Human Lung lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system. \* Non-specific interaction with the 230 kDa Simple Western standard may be seen with this antibody



Immunocytochemistry/Immunofluorescence: 5-Lipoxygenase Antibody - BSA Free TA336527 - U2OS cells were fixed in 4% paraformaldehyde for 10 minutes and permeabilized in 0.05% Triton X-100 in PBS for 5 minutes. The cells were incubated with 5-Lipoxygenase Antibody (TA336527) at 1ug/ml overnight at 4C and detected with an anti-rabbit DyLight 488 (Green) at a 1:1000 dilution for 60 minutes. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.



Western Blot: 5-Lipoxygenase Antibody TA336527 - Detection of LOX5 in human peripheral leukocytes using TA336527 at 0.5(Lane 1) and 2.0 ug/ml (Lane 2).