

**Datasheet for 600-401-D03****5-Lipoxygenase phospho S523 Antibody****Overview**

|                      |                                                           |
|----------------------|-----------------------------------------------------------|
| <b>Description:</b>  | Anti-5-Lipoxygenase pS523 (RABBIT) Antibody - 600-401-D03 |
| <b>Item No.:</b>     | 600-401-D03                                               |
| <b>Size:</b>         | 100 µL                                                    |
| <b>Applications:</b> | WB                                                        |
| <b>Reactivity:</b>   | Human, Rat                                                |
| <b>Host Species:</b> | Rabbit                                                    |

**Product Details**

**Background:** 5-Lipoxygenase pS523 antibody recognizes the enzyme 5-lipoxygenase (5-LO) which plays a key role in regulating the production of leukotrienes (LTs). Overproduction of LTs contributes to several diseases, most notably chronic inflammatory diseases, including asthma, fibrosis and atherosclerosis. Recent work has demonstrated that the activity of 5-LO is regulated by PKA phosphorylation of serine-523 in 5-LO. Under normal conditions, this phosphorylation may be important in limiting inflammation. Abnormal signaling through cAMP and PKA, then, could contribute to a variety of diseases, including those characterized by chronic inflammation. The phospho-specific antibody to Ser523 on 5-LO is thus likely to provide a valuable tool for studies of the role of 5-LO regulation in diseases such as asthma, fibrosis and atherosclerosis. Anti-5-Lipoxygenase pS523 antibody is ideal for investigators involved in Cell Signaling, Neuroscience, Signal Transduction research.

|                      |                                   |
|----------------------|-----------------------------------|
| <b>Synonyms:</b>     | Arachidonate 5-lipoxygenase, 5-LO |
| <b>Host Species:</b> | Rabbit                            |
| <b>Clonality:</b>    | Polyclonal                        |
| <b>Format:</b>       | IgG                               |

**Target Details**

|                         |                 |
|-------------------------|-----------------|
| <b>Gene Name:</b>       | ALOX5           |
| <b>Reactivity:</b>      | Human, Rat      |
| <b>PTM Specificity:</b> | Phosphorylation |

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|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Immunogen Type:</b>     | Conjugated Peptide                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Immunogen:</b>          | Anti-5-Lipoxygenase pS523 Antibody was produced by repeated immunizations with synthetic phospho-peptide corresponding to amino acid residues surrounding Ser523.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Purity/Specificity:</b> | Anti-5-Lipoxygenase pS523 Antibody is directed against human 5-Lipoxygenase phosphorylated at S523. The antibody was prepared from monospecific antiserum by immunoaffinity chromatography using phospho peptide coupled to agarose beads followed by solid phase adsorption(s) against non-phospho peptide and non-specific peptide to remove any unwanted reactivities. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Rabbit Serum. Reactivity is expected from the following species based on 100% sequence homology: non human primates. Cross reactivity with 5-Lipoxygenase pS523 from other species has not been determined. |
| <b>Relevant Links:</b>     | <ul style="list-style-type: none"><li>• <a href="#">UniProtKB - P09917</a></li><li>• <a href="#">GenelD - 240</a></li><li>• <a href="#">UniProtKB - P09917.2</a></li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

## Application Details

|                             |                                                                                                                                                                                                                                                                                            |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tested Applications:</b> | WB                                                                                                                                                                                                                                                                                         |
| <b>Application Note:</b>    | Anti-5-Lipoxygenase pS523 antibody has been tested in Western Blotting and is suitable for use in ELISA. Specific conditions for reactivity should be optimized by the end user. Expect a band of approximately 80 kDa corresponding to the 80 kDa 5-LO proteins phosphorylated at Ser523. |
| <b>Assay Dilutions:</b>     | All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.                                                                                                                                                                                            |
| <b>ELISA:</b>               | 1:10,000                                                                                                                                                                                                                                                                                   |
| <b>WB:</b>                  | 1:1000                                                                                                                                                                                                                                                                                     |

## Formulation

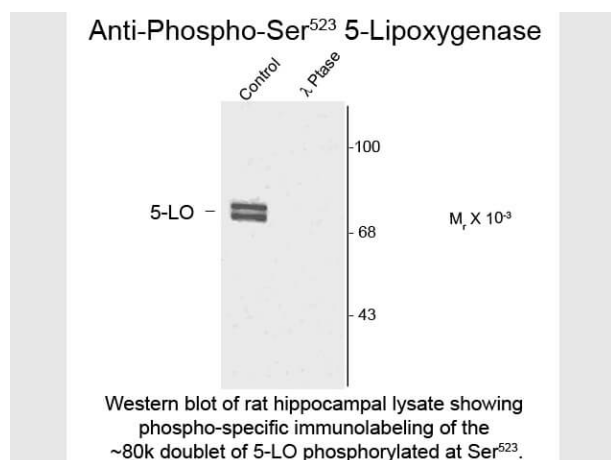
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|------------------------|----------------------------------------------------------------------------------|
| <b>Physical State:</b> | Liquid                                                                           |
| <b>Buffer:</b>         | 0.01 M HEPES, 0.15 M Sodium Chloride, pH 7.5                                     |
| <b>Stabilizer:</b>     | 0.1 mg/ml Bovine Serum Albumin (BSA) - IgG and Protease free, 50% (v/v) Glycerol |

## Shipping & Handling

|                            |         |
|----------------------------|---------|
| <b>Shipping Condition:</b> | Dry Ice |
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|                           |                                                                                                                                                                                                                                               |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Storage Condition:</b> | Store vial at -20° C prior to opening. This product is stable at 4° C as an undiluted liquid. For extended storage, aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Dilute only prior to immediate use. |
| <b>Expiration:</b>        | Expiration date is one (1) year from date of receipt.                                                                                                                                                                                         |

## Images



### Western Blot

Western Blot of Rabbit Anti-5-Lipoxygenase pS523 antibody. Lane 1: rat cortex lysate. Lane 2: rat cortex lysate incubated in λ-Ptase (1200 units for 30 min). Load: 10 μg per lane. Primary antibody: 5-LO Ser523 antibody at 1:400 for overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: ~80k doublet of 5-LO phosphorylated at Ser523. Other band(s): none.

## Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.