### Overview

<table>
<thead>
<tr>
<th><strong>Product name</strong></th>
<th>Anti-Cytosolic Phospholipase A2 antibody</th>
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</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Rabbit polyclonal to Cytosolic Phospholipase A2</td>
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<tr>
<td><strong>Host species</strong></td>
<td>Rabbit</td>
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<td><strong>Specificity</strong></td>
<td>ab58375 detects endogenous levels of total Cytosolic Phospholipase A2 protein.</td>
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<td><strong>Tested applications</strong></td>
<td>Suitable for: ICC/IF, ELISA, WB, IHC-P</td>
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<td><strong>Species reactivity</strong></td>
<td>Reacts with: Mouse, Rat, Human</td>
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<td><strong>Immunogen</strong></td>
<td>Synthetic peptide corresponding to Human Cytosolic Phospholipase A2 (phospho S505).</td>
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<tr>
<td></td>
<td>Sequence: P-L-S-P-L</td>
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*Positive control*: HeLa cell extracts treated with TNF alpha (20ng/ml, 30mins) and human colon carcinoma.

### Properties

<table>
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<tr>
<th><strong>Form</strong></th>
<th>Liquid</th>
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<tbody>
<tr>
<td><strong>Storage instructions</strong></td>
<td>Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.</td>
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</table>
| **Storage buffer** | pH: 7.40  
Preservative: 0.02% Sodium azide  
Constituents: PBS, 50% Glycerol, 0.87% Sodium chloride  
Without Mg+2 and Ca+2 |
| **Purity**       | Immunogen affinity purified |
| **Purification notes** | ab58375 was affinity purified from rabbit antiserum affinity chromatography using epitope-specific immunogen. |
| **Clonality**    | Polyclonal |
| **Isotype**      | IgG     |

### Applications

Our [Abpromise guarantee](https://www.abcam.com/abpromise) covers the use of **ab58375** in the following tested applications.
Function
Selectively hydrolyzes arachidonyl phospholipids in the sn-2 position releasing arachidonic acid. Together with its lysophospholipid activity, it is implicated in the initiation of the inflammatory response.

Tissue specificity
Expressed in various tissues such as macrophages, platelets, neutrophils, fibroblasts and lung endothelium.

Sequence similarities
Contains 1 C2 domain.
Contains 1 PLA2c domain.

Domain
The N-terminal C2 domain associates with lipid membranes upon calcium binding. It modulates enzyme activity by presenting the active site to its substrate in response to elevations of cytosolic Ca(2+).

Post-translational modifications
Activated by phosphorylation at both Ser-505 and Ser-727.

Cellular localization
Cytoplasm. Cytoplasmic vesicle. Translocates to membrane vesicles in a calcium-dependent fashion.

Target

Application | Abreviews | Notes
---|---|---
**ICC/IF** | | Use at an assay dependent concentration. PubMed: 20584290
**ELISA** | 1/10000. |
**WB** | 1/500 - 1/1000. Detects a band of approximately 110 kDa (predicted molecular weight: 85 kDa). |
**IHC-P** | | Use at an assay dependent concentration.

Images

**All lanes**: Anti-Cytosolic Phospholipase A2 antibody (ab58375) at 1/500 dilution

**Lane 1**: HeLa cell extracts treated with TNF alpha (20ng/ml, 30mins)

**Lane 2**: HeLa cell extracts treated with TNF alpha (20ng/ml, 30mins) with immunising peptide

**Predicted band size**: 85 kDa
**Observed band size**: 110 kDa

why is the actual band size different from the predicted?
ab58375 at 1/50-1/100 dilution staining Cytosolic Phospholipase A2 in human colon carcinoma by Immunohistochemistry, Paraffin embedded tissue, in the absence or presence of the immunising peptide.

Immunohistochemical analysis of Human spleen tissue, staining Phospholipase A2 with ab58375.

Tissue was fixed with formaldehyde and blocked with blocking solution for 10 minutes at 37°C; antigen retrieval was by heat mediation in a cell conditioner. Samples were incubated with primary antibody (undiluted) for 1 hour at 37°C. A biotinylated-conjugated goat anti-rabbit polyclonal IgG was used as the secondary antibody.

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