# Mouse C4.4A/LYPD3 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF5567

## DESCRIPTION

| | |
|---|---|
| **Species Reactivity** | Mouse |
| **Specificity** | Detects mouse C4.4A in direct ELISAs and Western blots. In direct ELISAs, approximately 40% cross-reactivity with recombinant human C4.4A is observed. |
| **Source** | Polyclonal Goat IgG |
| **Purification** | Antigen Affinity-purified |
| **Immunogen** | Mouse myeloma cell line NS0-derived recombinant mouse C4.4A<br>Leu33-His287<br>Accession # Q91YK8 |
| **Formulation** | Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.<br>*Small pack size (-SP) is supplied as a 0.2 μm filtered solution in PBS. |

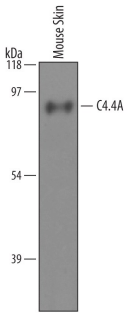
## APPLICATIONS

**Please Note:** *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

| | Recommended Concentration | Sample |
|---|---|---|
| **Western Blot** | 1 µg/mL | See Below |
| **Immunohistochemistry** | 5-15 µg/mL | See Below |

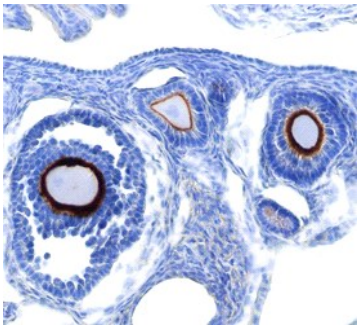
## DATA

### Western Blot




**Detection of Mouse C4.4A/LYPD3 by Western Blot.** Western blot shows lysates of mouse skin tissue. PVDF membrane was probed with 1 µg/mL of Goat Anti-Mouse C4.4A/LYPD3 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5567) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for C4.4A/LYPD3 at approximately 95 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

### Immunohistochemistry



**C4.4A/LYPD3 in Mouse Ovary.** C4.4A/LYPD3 was detected in perfusion fixed frozen sections of mouse ovary using Goat Anti-Mouse C4.4A/LYPD3 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5567) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). View our protocol for Chromogenic IHC Staining of Frozen Tissue Sections.

## PREPARATION AND STORAGE

| | |
|---|---|
| **Reconstitution** | Reconstitute at 0.2 mg/mL in sterile PBS. |
| **Shipping** | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.<br>*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C |
| **Stability & Storage** | **Use a manual defrost freezer and avoid repeated freeze-thaw cycles.**<br>● 12 months from date of receipt, -20 to -70 °C as supplied.<br>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.<br>● 6 months, -20 to -70 °C under sterile conditions after reconstitution. |



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## BACKGROUND

C4.4A, also known as Ly6/PLAUR domain containing 3 (LYPD-3), is a GPI-linked protein with structural similarity to the urokinase-type plasminogen activator receptor (uPAR) (1). Mature mouse C4.4A contains two uPAR/Ly6 domains and a Ser/Thr/Pro-rich (STP) region that includes a protease sensitive site (2, 3). Mouse C4.4A shares 80% and 92% amino acid sequence identity with human and rat C4.4A, respectively. It is a 65-100 kDa molecule with cell type-specific N- and O-linked glycosylation (4, 5). Proteolytic cleavage following the second uPAR/Ly6 domain generates a 35-40 kDa soluble form, while ADAM10 or ADAM17-mediated cleavage within the STP region generates a 90 kDa soluble form (6-8). Soluble C4.4A can also be shed and released in membrane vesicles (5). C4.4A is expressed in the suprabasal layers of stratified squamous epithelium and is upregulated on migrating keratinocytes during wound healing (6, 7). Its expression is downregulated during the onset of epithelial dysplasia but subsequently upregulated at the invasive front of melanomas and various carcinomas (2, 6, 5, 9). Metastases derived from these tumors also express high levels of C4.4A (2, 5, 6). The interaction of C4.4A with Laminin-1 and -5 on neighboring cells promotes the adhesion, spreading, and migration of tumor cells (4, 6, 10). C4.4A additionally interacts with Galectin-3 and the anterior gradient proteins AG-2 and AG-3 (10, 11). C4.4A over-expression in non-small cell lung cancer is predictive of increased mortality (12).

**References:**

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