# Human Carboxylesterase 2/CES2 Antibody

Antigen Affinity-purified Polyclonal Goat IgG

Catalog Number: AF5657

## DESCRIPTION

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|---|---|
| **Species Reactivity** | Human |
| **Specificity** | Detects human Carboxylesterase 2/CES2 in direct ELISAs and Western blots. In direct ELISAs, less than 5% cross-reactivity with recombinant human CES1, recombinant mouse (rm) CES2, rmCES3, and rmCES5 is observed. |
| **Source** | Polyclonal Goat IgG |
| **Purification** | Antigen Affinity-purified |
| **Immunogen** | Mouse myeloma cell line NS0-derived recombinant human Carboxylesterase 2/CES2<br>Gln27-Leu559<br>Accession # O00748 |
| **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. |

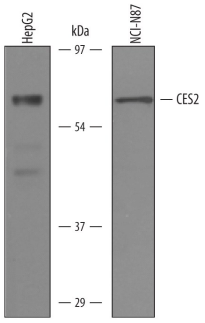
## APPLICATIONS

**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 | Immersion fixed paraffin-embedded sections of human liver |

## DATA

**Western Blot**




**Detection of Human Carboxylesterase 2/CES2 by Western Blot.** Western blot shows lysates of HepG2 human hepatocellular carcinoma cell line and NCI-N87 human gastric carcinoma cell line. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human Carboxylesterase 2/CES2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5657) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for Carboxylesterase 2/CES2 at approximately 60-65 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

## PREPARATION AND STORAGE

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| **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. |

## BACKGROUND

CES2 (Carboxylesterase 2; also CE-2) is a glycosylated, monomeric member of the type-B carboxyesterase/lipase family of enzymes. Although it runs at 59-62 kDa in SDS-PAGE, Gel filtration assigns an 80 kDa MW to it. CES2 is an ER luminal enzyme that catalyzes the conversion of carboxlic ester to alcohol. It is found in small intestine and liver, and likely participates in the detoxification of drugs. Mature human CES2 is 533 amino acids (aa) in length (aa 27-559). It contains a catalytic site composed of Ser228Glu345His457, and an ER-retention motif over aa 556 - 559. Individually or in combination, splice variants may show an alternate start site 64 aa upstream of the standard site, a Val substitution for aa 458-474, or a nine aa insertion after Met1. Over the length of the precursor (aa 1-559) human CES2 shares 72% aa identity with mouse CES2.



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