

#### DESCRIPTION

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| <b>Species Reactivity</b>                                                                                                                                                                               | Human                                                                                                                   |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human Chymotrypsin C/CTRC in direct ELISAs and Western blots.                                                   |
| <b>Source</b>                                                                                                                                                                                           | Polyclonal Sheep IgG                                                                                                    |
| <b>Purification</b>                                                                                                                                                                                     | Antigen Affinity-purified                                                                                               |
| <b>Immunogen</b>                                                                                                                                                                                        | Chinese hamster ovary cell line CHO-derived recombinant human Chymotrypsin C/CTRC<br>Cys17-Leu268<br>Accession # Q99895 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 405<br>Excitation Wavelength: 405 nm<br>Emission Wavelength: 421 nm                                         |
| <b>Formulation</b>                                                                                                                                                                                      | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide                                                            |
| *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |                                                                                                                         |

#### 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.

|                             |                                                                        |
|-----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>         | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunohistochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### BACKGROUND

Chymotrypsin C (CTRC), also known as caldecrin, is a serine protease and a member of the peptidase S1 family. The CTRC gene encodes a serum calcium-decreasing factor that has chymotrypsin-like protease activity (1). CTRC has broad substrate specificity, but prefers to cleave on the carboxyl side of hydrophobic residues. The enzyme is expressed primarily in the pancreas, and is secreted into the digestive tract. CTRC is a key regulator of activation and degradation of cationic trypsinogen (2, 3). The inappropriate activation of cationic trypsinogen can contribute to the development of pancreatitis (2, 3). CTRC inhibits osteoclast differentiation by suppression of NFATc1 function by a mechanism independent of its proteolytic activity (4).

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