

Chymotrypsin (T-20): sc-69255

BACKGROUND

Chymotrypsins, such as Chymotrypsin C (also known as pancreatic Chymotrypsin or Chymotrypsin), are digestive enzymes that can perform proteolysis by cleaving peptides at the carboxyl side of tyrosine, tryptophan and phenylalanine, although over time they can also hydrolyze other amide bonds, especially those with leucine-donated carboxyls. Chymotrypsins cleave peptide bonds by attacking the un-reactive carbonyl group with a powerful nucleophile, the Serine 195 residue located in the active site of the enzyme, which momentarily becomes covalently bonded to the substrate to form an intermediate. Chymotrypsin C is synthesized in the pancreas by protein biosynthesis as a precursor called chymotrypsinogen that is enzymatically inactive, but becomes active as a three polypeptide molecule that is interconnected by disulfide bonds.

REFERENCES

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5. Matsumoto, M. and Kondo, K. 2005. Enhanced thermostability of α -Chymotrypsin enclosed in inorganic microcapsules. *J. Biosci. Bioeng.* 92: 197-199.
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CHROMOSOMAL LOCATION

Genetic locus: *Ctrc* (mouse) mapping to 4 E1.

SOURCE

Chymotrypsin (T-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Chymotrypsin C of mouse origin.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-69255 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Chymotrypsin (T-20) is recommended for detection of Chymotrypsin C of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Chymotrypsin siRNA (m): sc-72907, Chymotrypsin shRNA Plasmid (m): sc-72907-SH and Chymotrypsin shRNA (m) Lentiviral Particles: sc-72907-V.

Molecular Weight of Chymotrypsin: 34 kDa.

Positive Controls: mouse pancreas extract: sc-364244.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **Chymotrypsin (601): sc-59482**, our highly recommended monoclonal alternative to Chymotrypsin (T-20).