

Human Cystatin E/M Antibody

Antigen Affinity-purified Polyclonal Goat IgG Catalog Number: AF1286

DESCRIPTION

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Species Reactivity	Human		
Specificity	Detects human Cystatin E/M in direct ELISAs and Western blots. In direct ELISAs, approximately 25% cross-reactivity with recombinant mouse Cystatin E/M is observed.		
Source	Polyclonal Goat IgG		
Purification	Antigen Affinity-purified		
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Cystatin E/M Arg29-Met149 Accession # Q15828		
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or 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 skin
Immunoprecipitation	25 μg/mL	Conditioned cell culture medium spiked with Recombinant Human Cystatin E/M (Catalog # 1286-PI), see our available Western blot detection antibodies
Simple Western	50 µg/mL	See Below

DATA





view shows lysates of human skin tissue, loaded at 0.2 mg/mL. A specific band was detected for Cystatin E/M at approximately 13 kDa (as indicated) using 50 µg/mL of Goat Anti-Human Cystatin E/M Antigen Affinitypurified Polyclonal Antibody (Catalog # AF1286) followed by 1:50 dilution of HRPconjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system. Non-specific interaction with the 230 kDa Simple Western standard may be seen with this antibody.

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. *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. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 	

6 months, -20 to -70 °C under sterile conditions after reconstitution

BACKGROUND

Cystatin E/M encoded by the CST6 gene is a member of family 2 of the cystatin superfamily (1, 2). It inhibits papain and cathepsin B, two of the cysteine proteases. Its mRNA was found in many tissues by the two groups who did initial cloning (1, 2). However, its protein was found only in skin and sweat glands by a third group (3). In addition to being a cysteine protease inhibitor, cystatin E/M is also a substrate for transglutaminases (3). It is required for viability and for correct formation of cornified layers in the epidermis and hair follicles, as ichq mice, with a null mutation in the cystatin E/M gene, have defects in epidermal cornification and die between 5 and 12 days of age (4). Cystatin E/M expression and function may not be limited to cutaneous epithelia. For example, it is found in rat brain and is induced during neuronal cell differentiation (5).

References:

- 1. Sotiropoulou, G. et al. (1997) J. Biol. Chem. 272:903.
- 2. Ni, J. et al. (1997) J. Biol. Chem. 272:10853.
- 3. Zeeuwen, P.L. et al. (2001) J. Invest. Dermatol. 116:693.
- 4. Zeeuwen, P.L. et al. (2002) Hum. Mol. Genet. 11:2867.
- Hong, J. et al. (2002) J. Neurochem. 81:922. 5.

Rev. 2/6/2018 Page 1 of 1



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