

Polyclonal Anti-MUC5AC Antibody

Catalog Number: PA2303

Description

Gene Name	mucin 5AC, oligomeric mucus/gel-forming
Recommended Protein Name	Mucin-5AC
Lot No.	0231412c01j020336
Size	100µg/vial
Form	lyophilized
Ig type	Rabbit IgG
Specificity	No cross reactivity with other proteins.
Purification	Immunogen affinity purified.
Species	Reacts with: human
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human MUC5AC(552-567aa TMQLFMQLAPKLRGQT).
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg NaN ₃ .

Application

	Concentration	Tested Species	Predicted Species	Antigen Retrieval
Western blot	0.1-0.5µg/ml	Hu	-	-
Immunohistochemistry (Paraffin-embedded Section)	0.5-1µg/ml	Hu	-	By Heat

Tested Species: In-house tested species with positive results.

Predicted Species: Species predicted to be fit for the product based on sequence similarities.

Other applications have not been tested.

Optimal dilutions should be determined by end users.

Preparation and storage

Reconstitution: 0.2ml of distilled water will yield a concentration of 500µg/ml.

Storage: At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time.

Avoid repeated freezing and thawing.

Relevant detection systems

Boster provides a series of assays reacted with primary antibodies. Antibody can be supported by chemiluminescence kit EK1002 in WB, supported by SA1022 in IHC(P).

Background

Mucin-5AC is a protein that in humans is encoded by the MUC5AC gene. It is mapped to 11p15.5. MUC5AC is highly expressed in adult trachea and stomach. This gene has been linked to mucus hypersecretion in the pulmonary tracts and associated to chronic obstructive pulmonary disease(COPD). It has been showed that activation of the NF-kappa-B signaling pathway by inflammatory cytokine TNF-alpha upregulated MUC5AC mRNA expression nearly 6-fold. MUC5AC is also a direct and critical mediator of resistance during intestinal nematode infection.

Reference

1. Hasnain, S. Z., Evans, C. M., Roy, M., Gallagher, A. L., Kindrachuk, K. N., Barron, L., Dickey, B. F., Wilson, M. S., Wynn, T. A., Grencis, R. K., Thornton, D. J. Muc5ac: a critical component mediating the rejection of enteric nematodes. *J. Exp. Med.* 208: 893-900, 2011.
2. Moehle, C., Ackermann, N., Langmann, T., Aslanidis, C., Kel, A., Kel-Margoulis, O., Schmitz-Madry, A., Zahn, A., Stremmel, W., Schmitz, G. Aberrant intestinal expression and allelic variants of mucin genes associated with inflammatory bowel disease. *J. Molec. Med.* 84: 1055-1066, 2006.
3. Wang G, Xu Z, Wang R, Al-Hijji M, Salit J, Strulovici-Barel Y, Tilley A, Mezey J, Crystal R (June 2012). "Genes associated with MUC5AC expression in small airway epithelium of human smokers and nonsmokers". *BMC Med Genomics*5 (1): 21.