

# Human CA19-9 protein, His tag (active)

# Cat. No. GTX00271-pro

Applications	Functional Assay	Package 10 μg
Species	Human	13

# **Applications**

#### **Application Note**

Galactoside 3 (4) -L-fucosyltransferase also known as Carbohydrate Antigen 19-9 (CA19-9) is an enzyme that in humans is encoded by the FUT3 gene. This gene is a member of the fucosyltransferase family, which catalyzes the addition of fucose to precursor polysaccharides in the last step of Lewis antigen biosynthesis. It encodes an enzyme with alpha (1,3) fucosyltransferase and alpha (1,4)- fucosyltransferase activities. Mutations in this gene are responsible for the majority of Lewis antigen-negative phenotypes. Besides, Lipase maturation factor 2 (LMF2) has been identified as an interactor of CA19-9, thus a binding ELISA assay was conducted to detect the interaction of recombinant human CA19-9 and recombinant human LMF2. Briefly, CA19-9 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to LMF2-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-CA19-9 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50 µl stop solution to the wells and read at 450nm immediately. The binding activity of CA19-9 and LMF2 was in a dose dependent manner. The binding activity of CA19-9 with LMF2.

Observed MW (kDa) 43 kDa.

Properties		
Form	Lyophilized powder	
Buffer	Lyophilized from 20 mM Tris (pH 8.0) with 150 mM NaCl, 1 mM EDTA, 1 mM DTT, 0.01% SKL, 5% Trehalose, Proclin300. Reconstitute with 20 mM Tris and 150 mM NaCl (pH 8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.	
Storage	For short-term storage (1-2 weeks), store at 4°C. For long-term storage, store at -20°C or below. After reconstitution, keep as concentrated solution. Avoid freeze-thaw cycles.	
Region/Sequence	N-terminal His-Tag; Arg35~Thr361 (NP_000140.1)	
Expression System	E. coli	
Purity	> 95%	
Endotoxin	< 1 EU/µg	
Conjugation	Unconjugated	
Note	For laboratory use only. Not for any clinical, therapeutic, or diagnostic use in humans or animals. Not for animal or human consumption.	

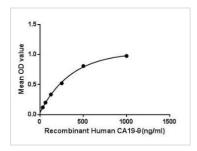


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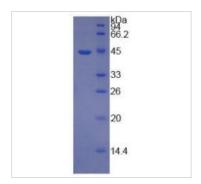


# DATA IMAGES



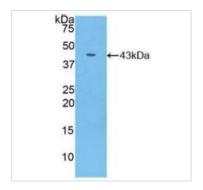
# **GTX00271-pro Functional Assay Image**

Functional ELISA analysis of GTX00271-pro Human CA19-9 protein (active) which can bind immobilized LMF2 protein.



# GTX00271-pro Image

SDS-PAGE analysis of GTX00271-pro Human CA19-9 protein (active).



# GTX00271-pro Image

WB analysis of GTX00271-pro Human CA19-9 protein (active).



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