

## CD367/CLEC4A Protein, Human (HEK293, His)

<b>Cat. No.:</b>	HY-P76833
<b>Synonyms:</b>	Clec4a2; CLECSF6; C-type lectin domain family 4 member A; CD antigen CD367
<b>Species:</b>	Human
<b>Source:</b>	HEK293
<b>Accession:</b>	Q9UMR7-1 (Q70-L237)
<b>Gene ID:</b>	50856
<b>Molecular Weight:</b>	Approximately 24-26 kDa due to the glycosylation.

### PROPERTIES

<b>AA Sequence</b>	<p>           Q K Y S Q L L E K K    T T K E L V H T T L    E C V K K N M P V E    E T A W S C C P K N            W K S F S S N C Y F    I S T E S A S W Q D    S E K D C A R M E A    H L L V I N T Q E E            Q D F I F Q N L Q E    E S A Y F V G L S D    P E G Q R H W Q W V    D Q T P Y N E S S T            F W H P R E P S D P    N E R C V V L N F R    K S P K R W G W N D    V N C L G P Q R S V            C E M M K I H L         </p>
<b>Biological Activity</b>	Measured by its ability of the immobilized protein to support the adhesion of Jurkat human acute T cell leukemia cells. The ED <sub>50</sub> for this effect is 1.260 µg/mL, corresponding to a specific activity is 793.651 units/mg
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	CD367/CLEC4A protein functions as a C-type lectin receptor with a preference for binding carbohydrates mannose and fucose, and a weaker interaction with N-acetylglucosamine (GlcNAc) in a Ca(2+)-dependent manner. This receptor plays a crucial role in regulating immune reactivity and, upon antigen triggering, undergoes internalization through clathrin-dependent endocytosis. Consequently, it delivers its antigenic cargo into the antigen presentation pathway, leading to the
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cross-priming of CD8(+) T cells. Notably, this cross-presentation and cross-priming are augmented by TLR7 and TLR8 agonists, resulting in increased expansion of CD8(+) T cells and heightened production of IFNG and TNF, while reducing levels of IL4, IL5, and IL13. In plasmacytoid dendritic cells, CD367/CLEC4A inhibits TLR9-mediated IFNA and TNF production. Furthermore, it may be involved in the inhibition of B-cell-receptor-mediated calcium mobilization and protein tyrosine phosphorylation via its ITIM motif (immunoreceptor tyrosine-based inhibitory motifs). In the context of microbial infection, CD367/CLEC4A is implicated in the interaction between HIV-1 virus and dendritic cells, enhancing HIV-1 binding and virus infection through an ITIM motif-associated signal transduction pathway involving phosphatases PTPN6 and PTPN11, SYK, Src kinases, and MAP kinases.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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