

# Product datasheet for MG225463

# Ceacam1 (NM\_011926) Mouse Tagged ORF Clone

### **Product data:**

Tag:

#### **Product Type: Expression Plasmids Product Name:** Ceacam1 (NM\_011926) Mouse Tagged ORF Clone TurboGFP Symbol: Ceacam1 bb-1; Bgp; Bgp1; C-CAM; Cc1; CD66a; Cea-1; Cea-7; Cea1; Cea7; Hv-2; Hv2; mCEA1; Mhv-1; Synonyms: MHVR: MHVR1 Mammalian Cell Neomycin Selection: Vector: pCMV6-AC-GFP (PS100010) E. coli Selection: Ampicillin (100 ug/mL) **Restriction Sites:** Sgfl-Mlul **Cloning Scheme:** Cloning sites used for ORF Shuttling: ORF Sgfl Mlu I GCGATCGC ACG CGT



Fse I Pme I GAA GAA AGA GTT TAA ACGGCCGGCCGCGGAGCT E Ε R Stop

ACCN: **ORF Size:**  NM\_011926 1023 bp



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### **OriGene Technologies, Inc.**

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reference only. However, individual transcript sequences of the same gene can diffe naturally occurring variations (e.g. polymorphisms), each with its own valid existence (cone is substantially in agreement with the reference, but a complete review of all p variants is recommended prior to use. <u>More info</u> OTI Annotation:This clone was engineered to express the complete ORF with an expression tag, Exp varies depending on the nature of the gene.Components:The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matri containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of 1. Centrifuge at 5,000g for Smin. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate at the bottom. 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from shipping when stored at -20°C.Note:Plasmids are not sterile. For experiments where strict sterility is required, filtration to 0.22um filter is required.RefSeq:NM 011926.2, NP 036056.2RefSeq ORF:1026 bpLocus ID:26365Cytogenetics:7 13.84 cMGene Summary:Isoform 1: Cell adhesion protein that mediates homophilic cell adhesion in a calcium independent manner (By similarity). Plays a role as coinhibitory receptor in immune insulin action and purtions also as an activator during angiogenesis (PubMed:16680 PubMed:17081782, PubMed:22496641, PubMed:22496641, PubMed:2102969, PubMed:21081647, PubMed:22496641, PubMed:22496641, PubMed:22496641, PubMed:22496641, PubMed:22496641, PubMed:22496641, PubMed:22496641, PubMed:22496641, PubMed:22496641, PubMed:224966		eacam1 (NM_011926) Mouse Tagged ORF Clone – MG225463
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### Ceacam1 (NM\_011926) Mouse Tagged ORF Clone – MG225463

mediated cytolysis of CEACAM1-bearing tumor cells by trans-homophilic interactions with CEACAM1 on the target cell and lead to cis-interaction between CEACAM1 and KLRK1, allowing PTPN6 recruitment and then VAV1 dephosphorylation (PubMed:23696226). Upon neutrophils activation negatively regulates IL1B production by recruiting PTPN6 to a SYK-TLR4-CEACAM1 complex, that dephosphorylates SYK, reducing the production of reactive oxygen species (ROS) and lysosome disruption, which in turn, reduces the activity of the inflammasome (PubMed:22496641). Downregulates neutrophil production by acting as a coinhibitory receptor for CSF3R by downregulating the CSF3R-STAT3 pathway through recruitment of PTPN6 that dephosphorylates CSF3R (PubMed:21029969). Also regulates insulin action by promoting INS clearance and regulating lipogenesis in liver through regulating insulin signaling (PubMed:18544705). Upon INS stimulation, undergoes phosphorylation by INSR leading to INS clearance by increasing receptor-mediated insulin endocytosis. This inernalization promotes interaction with FASN leading to receptor-mediated insulin degradation and to reduction of FASN activity leading to negative regulation of fatty acid synthesis. INSR-mediated phosphorylation also provokes a down-regulation of cell proliferation through SHC1 interaction resulting in decrease coupling of SHC1 to the MAPK3/ERK1-MAPK1/ERK2 and phosphatidylinositol 3-kinase pathways (By similarity). Functions as activator in angiogenesis by promoting blood vessel remodeling through endothelial cell differentiation and migration and in arteriogenesis by increasing the number of collateral arteries and collateral vessel calibers after ischemia (PubMed:16680193, PubMed:22962327). Also regulates vascular permeability through the VEGFR2 signaling pathway resulting in control of nitric oxide production (PubMed:21081647). Downregulates cell growth in response to EGF through its interaction with SHC1 that mediates interaction with EGFR resulting in decrease coupling of SHC1 to the MAPK3/ERK1-MAPK1/ERK2 pathway (PubMed:15467833). Negatively regulates platelet aggregation by decreasing platelet adhesion on type I collagen through the GPVI-FcRgamma complex (PubMed:19008452). Inhibits cell migration and cell scattering through interaction with FLNA; interfers with the interaction of FLNA with RALA (By similarity). Mediates bile acid transport activity in a phosphorylation dependent manner (By similarity). Negatively regulates osteoclastogenesis (PubMed:25490771).[UniProtKB/Swiss-Prot Function]

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## **Product images:**



Circular map for MG225463

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