

HLA-C Knockout cell line (HCT 116)

Catalog Number: KO17100

Product Information

Product Name	HLA-C Knockout cell line (HCT 116)
specification	1*10 ⁶
Storage and transportation	Dry ice preservation/T25 live cell transportation.
Cell morphology	Epithelioid, adherent cell
Passage ratio	1:2~1:4
species	Human
Gene	HLA-C
Gene ID	3107
Build method	Electric rotation method / virus method
Mycoplasma testing	Negative
Cultivation system	90%McCOYs 5A+10% FBS
Parental Cell Line	HCT 116
Quality Control	Genotype: HLA-C Knockout cell line (HCT 116) >95% viability before freezing. All cells were tested and found to be free of bacterial, viruses, mycoplasma and other toxins.

Gene Information

Gene Official Full Name	major histocompatibility complex, class I, Cprovided by HGNC
Also known as	MHC; HLAC; HLC-C; D6S204; PSORS1; HLA-JY3
Gene Description	HLA-C belongs to the HLA class I heavy chain paralogues. This class I molecule is a heterodimer consisting of a heavy chain and a light chain (beta-2 microglobulin). The heavy chain is anchored in the membrane. Class I molecules play a central role in the immune system by presenting peptides derived from endoplasmic reticulum lumen. They are expressed in nearly all cells. The heavy chain is approximately 45 kDa and its gene contains 8 exons. Exon one encodes the leader peptide, exons 2 and 3 encode the alpha1 and alpha2 domain, which both bind the peptide, exon 4 encodes the alpha3 domain, exon 5 encodes the transmembrane region, and exons 6 and 7 encode the cytoplasmic tail. Polymorphisms within exon 2 and exon 3 are responsible for the peptide binding specificity of each class one molecule. Typing for these polymorphisms is routinely done for bone marrow and kidney transplantation. About 6000 HLA-C alleles have been described. The HLA system plays an important role in the occurrence and outcome of infectious diseases, including

	those caused by the malaria parasite, the human immunodeficiency virus (HIV), and the severe acute respiratory syndrome coronavirus (SARS-CoV). The structural spike and the nucleocapsid proteins of the novel coronavirus SARS-CoV-2, which causes coronavirus disease 2019 (COVID-19), are reported to contain multiple Class I epitopes with predicted HLA restrictions. Individual HLA genetic variation may help explain different immune responses to a virus across a population.[provided by RefSeq, Aug 2020]
Expression	Broad expression in lung (RPKM 536.7), bone marrow (RPKM 302.4) and 22 other tissues See more