JAK2 Knockout cell line (AC16)

Catalog Number: KOA15167

Product Information	
Product Name	JAK2 Knockout cell line (AC16)
specification	1*10^6
Storage and transportation	Shipped on dry ice; Store in liquid nitrogen
Cell morphology	Fibroblast-like, adherent
Passage ratio	1 : 3-1 : 4
species	Human
Gene	JAK2
Gene ID	3717
Build method	Electroporation/Lentivirus
Mycoplasma testing	negative
Cultivation system	90% DMEM/F12+10% FBS
Price (USD)	Inquiry
Parental Cell Line	AC16
Quality Control	Genotype: JAK2 Knockout cell line (AC16)>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	Janus kinase 2provided by HGNC
Also known as	JTK10
Gene Description	This gene encodes a non-receptor tyrosine kinase that plays a central role in cytokine and growth factor signalling. The primary isoform of this protein has an N-terminal FERM domain that is required for erythropoietin receptor association, an SH2 domain that binds STAT transcription factors, a pseudokinase domain and a C-terminal tyrosine kinase domain. Cytokine binding induces autophosphorylation and activation of this kinase. This kinase then recruits and phosphorylates signal transducer and activator of transcription (STAT) proteins. Growth factors like TGF-beta 1 also induce phosphorylation and activation of this kinase and translocation of downstream STAT proteins to the nucleus where they influence gene transcription. Mutations in this gene are associated with numerous inflammatory diseases and malignancies. This gene is a downstream target of the pleiotropic cytokine IL6 that is produced by B cells, T cells, dendritic cells and macrophages to

	produce an immune response or inflammation. Disregulation of the IL6/JAK2/STAT3 signalling pathways produces increased cellular proliferation and myeloproliferative neoplasms of hematopoietic stem cells. A nonsynonymous mutation in the pseudokinase domain of this gene disrupts the domains inhibitory effect and results in constitutive tyrosine phosphorylation activity and hypersensitivity to cytokine signalling. This gene and the IL6/JAK2/STAT3 signalling pathway is a therapeutic target for the treatment of excessive inflammatory responses to viral infections. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Jul 2020]
Expression	Ubiquitous expression in appendix (RPKM 11.3), heart (RPKM 11.1) and 24 other tissues See more