

TRG Knockout cell line (HCT 116)

Catalog Number: KO35068

Product Information	
Product Name	TRG 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	TRG
Gene ID	6965
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: TRG 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	T cell receptor gamma locusprovided by HGNC
Also known as	TCRG; TRG@
Gene Description	T cell receptors recognize foreign antigens which have been processed as small peptides and bound to major histocompatibility complex (MHC) molecules at the surface of antigen presenting cells (APC). Each T cell receptor is a dimer consisting of one alpha and one beta chain or one delta and one gamma chain. In a single cell, the T cell receptor loci are rearranged and expressed in the order delta, gamma, beta, and alpha. If both delta and gamma rearrangements produce functional chains, the cell expresses delta and gamma. If not, the cell proceeds to rearrange the beta and alpha loci. This region represents the germline organization of the T cell receptor gamma locus. The gamma locus includes V (variable), J (joining), and C (constant) segments. During T cell development, the gamma chain is synthesized by a recombination event at the DNA level joining a V segment with a J segment; the C segment is later joined by splicing at the RNA level. Recombination of many different V segments with several J segments provides a wide range of

antigen recognition. Additional diversity is attained by junctional diversity, resulting from the random addition of nucleotides by terminal deoxynucleotidyltransferase. Several V segments of the gamma locus are known to be incapable of encoding a protein and are considered pseudogenes. Somatic rearrangement of the gamma locus has been observed in T cells derived from patients with T cell leukemia and ataxia telangiectasia. [provided by RefSeq, Jul 2008]