

HR1 Cell Line

Catalogue number: 153329

Sub-type: Continuous

Images:

Contributor

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Images:

Tool details

***FOR RESEARCH USE ONLY**

Name: HR1 Cell Line

Alternate name: RAF proto-oncogene serine/threonine-protein kinase (EC:2.7.11.1), Proto-oncogene c-RAF, cRaf, Raf-1

Class:

Conjugate:

Description: HR1 cells are HEK 293 cells stably expressing conditional kinase ?Raf-1:ER* from the pCMV Neo Myc plasmid. ?Raf-1:ER* (also known as ?CRAF:ER*) consists of the isolated kinase domain of c-Raf1 fused in-frame to a modified form of the hormone binding domain of the estrogen receptor (hbER*) that can be de-repressed by 4-hydroxytamoxifen (4-HT) but not ?-estradiol. In this case the * refers to a point mutation that ablates estradiol binding but allows 4-HT binding. Activation of ?Raf-1:ER* leads to the selective activation of the ERK1/2 pathway. This cell line can be used to study the cellular role and factors impacting on the ERK1/2 signalling pathway such as gene expression, cell proliferation, cell cycle arrest and cell death. The cells are G418 resistant. Conditional kinase activation of ?Raf-1:ER* can be induced with 100nM 4-HT.

Purpose:

Parental cell: HEK 293

Organism: Human

Tissue: Kidney

Model:

Gender:

Isotype:

Reactivity:

Selectivity:

Host:

Immunogen:

Immunogen UNIPROT ID:

Sequence:

Growth properties: Adherent cell line

Production details: HEK 293 cells were transfected with the pCMV Neo Myc plasmid expressing ΔE119-Raf-1:ER*. Stable transfectants were selected by neomycin resistance using G418 (Geneticin) and ring cloning.

Formulation:

Recommended controls:

Bacterial resistance:

Selectable markers:

Additional notes:

Target details

Target: c-Raf1

Target alternate names:

Target background:

Molecular weight:

Ic50:

Applications

Application:

Application notes:

Handling

Format: Frozen

Concentration:

Passage number:

Growth medium: Phenol red-free Dulbecco's modified Eagle's medium (DMEM) high glucose version, 2 mM L-glutamine, 10% fetal bovine serum (FBS), 400 µg/ml G418 (Geneticin).

Temperature:

Atmosphere:

Volume:

Storage medium:

Storage buffer:

Storage conditions:

Shipping conditions: Dry ice

Related tools

Related tools: HM3 Cell Line

References

References: Gilley et al. 2009. Cell Signal. 21(6):969-77. PMID: 19249353. ; ERK1/2, but not ERK5, is necessary and sufficient for phosphorylation and activation of c-Fos. ; Boughan et al. 2006. J Biol Chem. 281(17):11637-48. PMID: 16513653. ; Nucleotide-binding oligomerization domain-1 and epidermal growth factor receptor: critical regulators of beta-defensins during Helicobacter pylori infection. ; Todd et al. 2004. Oncogene. 23(19):3284-95. PMID: 14981547. ; ERK1/2 and p38 cooperate to induce a p21CIP1-dependent G1 cell cycle arrest.

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