6042 Cornerstone Court W, Ste B
San Diego, CA 92121
Tel: 1.858.829.3082
Fax: 1.858.481.8694
Email: info@bpsbioscience.com

Data Sheet

ROR1-CHO Recombinant Cell Line

(Medium Expression)

Catalog #79609-M

BACKGROUND:
Tyrosine-protein kinase transmembrane receptor (ROR1) is an enzyme that in humans is encoded by the *ROR1* gene. The ROR1 is expressed by tumor cells of various hematologic and solid malignancies and is largely absent from postnatal healthy cells and tissues. Treatment with a humanized monoclonal antibody specific for ROR1 (UC-961) can inhibit the capacity of ovarian cancer cells to migrate or engraft immune-deficient mice.

DESCRIPTION:
Recombinant clonal stable CHO cell line constitutively expressing full length human ROR1 protein (Genbank NM_005012.3). Surface expression of ROR1 was confirmed by flow cytometry. Each stable clonal cell line was selected for different levels of ROR1 expression (High, Medium, Low) to mimic different stages of cancer target cells with various ROR1 expression levels.

APPLICATION:
- Screen for activators or inhibitors of ROR1 antibody-mediated cell signaling for immunotherapy research and drug discovery.
- Characterize ROR1 antibodies and ligands for binding assay.

HOST CELL:
CHO K1 cell line, Chinese Hamster Ovary

FORMAT:
Each vial contains ~ 2.5 x 10^6 cells in 1 ml of Thaw Medium 3 + 10% DMSO.

STORAGE:
Store in liquid nitrogen immediately upon receipt.

CELL CULTURE:

Thaw Medium 3 (BPS Bioscience, #60186): Ham's F-12 medium (Hyclone #SH30526.01) supplemented with 10% FBS (Life Technologies #26140-079), 1% Penicillin/Streptomycin (Hyclone #SV30010.01).

Growth Medium 3B (BPS Bioscience, #79529): Thaw Medium 3 (BPS Bioscience, #60186) plus 500 µg/ml Hygromycin (Thermo Fisher, #10687010).

6042 Cornerstone Court W, Ste B
San Diego, CA 92121
Tel: 1.858.829.3082
Fax: 1.858.481.8694
Email: info@bpsbioscience.com

RECOMMENDED CULTURE CONDITION:
Thawing cells: Prepare a 15 ml conical tube with 10 ml of pre-warmed Thaw Medium 3 (**no hygromycin**). Quickly thaw cells in a 37°C water bath with constant and slow agitation. Clean the outside of the vial with 70% ethanol and immediately transfer the entire content to Thaw Medium 3 (**no hygromycin**). Avoid pipetting up and down, and gently rock the conical tube.

Spin the cells down at 150 x g for 5 minutes. Discard the medium and re-suspend the cell pellet in fresh Thaw Medium 3 (**no hygromycin**). Transfer the entire content to a T75 flask to distribute the cells. Incubate the cells in a humidified 37°C incubator with 5% CO_2. After 48-72 hours of incubation, change to fresh Thaw Medium 3 (**no hygromycin**), without disturbing the attached cells. Switch to Growth Medium 3D at the first passage.

Subculture: When cells reach 90% confluency, remove the medium and wash twice with PBS (without magnesium or calcium). Treat cells with 1 ml of 0.25% trypsin/EDTA and incubate for 3 minutes at 37°C. After confirming cell detachment by light microscopy, add 10 ml pre-warmed medium and gently pipette up and down to dissociate cell clumps. Dispense 1 ml of the cell suspension into a new T75 flask containing 14 ml pre-warmed growth media **(with hygromycin).** Incubate cells in a humidified 37°C incubator with 5% CO_2. Cells should be split twice per week at a 1:10 split ratio. Freeze cells in 90% FBS with 10% DMSO. Cells have been demonstrated to be stable for at least 15 passages; BPS recommends preparing frozen stocks at an early passage.

MYCOPLASMA TESTING:
This cell line has been screened using the Quick Test Mycoplasma Detection Kit (Biotool.com, #B39032) to confirm the absence of Mycoplasma contamination.

6042 Cornerstone Court W, Ste B
San Diego, CA 92121
Tel: 1.858.829.3082
Fax: 1.858.481.8694
Email: info@bpsbioscience.com

QUALITY ASSURANCE:

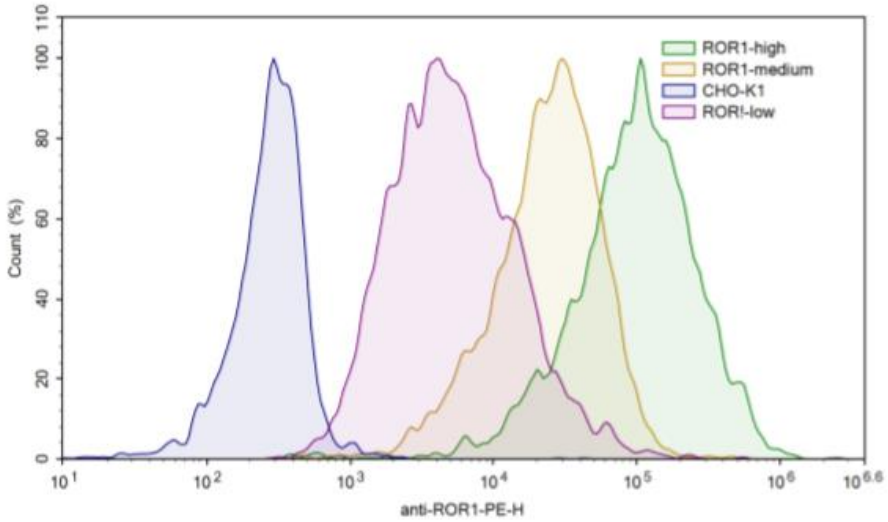

Figure 1. Expression of ROR1 validated by flow cytometry. *Flow cytometry using PE-conjugated anti-human ROR1 antibody (Biolegend, #3578004) detects ROR1 on the surface of ROR1 CHO Recombinant Cell Lines with different expression levels: #79609-H, high expresser, green; #79609-M, medium expresser, orange; #79609-L, low expresser, purple; WT CHO-K1 negative control: blue.*

VECTOR AND SEQUENCE:

Human ROR1 gene (NM_005012.3) was cloned into pCMV3-Hyg

MHRPRRRGTRPPLLALLAALLLAARGAAAQETELSVSAELVPTSSWNISSELNKDSYLTLDEPMNNITTSL
GQTAELHCKVSGNPPPTIRWFKNDAPVVQEPRRLSFRSTIYGSRLRIRNLDTTDTGYFQCVATNGKEVVS
STGVLFVKFGPPPTASPGYSDEYEEDGFCQPYRGIACARFIGNRTVYMESLHMQGEIENQITAAFTMIGT
SSHLSDKCSQFAIPSLCHYAFPYCDETSSVPKPRDLCRDECEILENVLCQTEYIFARSNPMILMRLKLPNC
EDLPQPESPEAANCIRIGIPMADPINKNHKCYNSTGVDYRGTVSVTKSGRQCQPWNSQYPHTHTFTALRF
PELNGGHSYCRNPGNQKEAPWCFTLDENFKSDLCDIPACDSKDSKEKNKMEILYILVPSVAIPLAIALLFFF
ICVCRNNQKSSSAPVQRQPKHVRGQNVEMSMLNAYKPKSKAKELPLSAVRFMEELGECAFGKIYKGHLY
LPGMDHAQLVAIKTLKDYNNPQQWTEFQQEASLMAELHHPNIVCLLGAVTQEQPVCMLFEYINQGDLHE
FLIMRSPHSDVGCSSDEDGTVKSSLDHGDFLHIAIQIAAGMEYLSSHFFVHKDLAARNILIGEQLHVKISDL
GLSREIYSADYYRVQSKSLLPIRWMPPEAIMYGKFSSDSDIWSFGVVLWEIFSFGLQPYYGFSNQEVIEMV
RKRQLLPCSEDCPPRMYSLMTECWNEIPSRRPRFKDIHVRLRSWEGLSSHTSSTTPSGGNATTQTTSLS
ASPVSNLSNPRYPNYMFPSQGITPQGQIAGFIGPPIPQNQRFIPINGYPIPPGYAAFPAAHYQPTGPPRVIQ
HCPPPKSRSPSSASGSTSTGHVTSLPSSGSNQEANIPLLPHMSIPNHPGGMGITVFGNKSQKPYKIDSKQ
ASLLGDANIHGHTESMISAEL

6042 Cornerstone Court W, Ste B
San Diego, CA 92121
Tel: 1.858.829.3082
Fax: 1.858.481.8694
Email: info@bpsbioscience.com

LICENSE DISCLOSURE: Purchase of this cell line grants you with a 10-year license to use this cell line in your immediate laboratory, for research use only. This license does not permit you to share, distribute, sell, sublicense, or otherwise make the cell line available for use to other laboratories, departments, research institutions, hospitals, universities, or biotech companies. The license does not permit the use of this cell line in humans or for therapeutic or drug use. The license does not permit modification of the cell line in any way. Inappropriate use or distribution of this cell line will result in revocation of the license and result in an immediate cease of sales and distribution of BPS products to your laboratory. BPS does not warrant the suitability of the cell line for any particular use and does not accept any liability in connection with the handling or use of the cell line. Modifications of this cell line, transfer to another facility, or commercial use of the cells may require a separate license and additional fees; contact sales@bpsbioscience.com for details. Publications using this cell line should reference BPS Bioscience, Inc., San Diego.

RELATED PRODUCTS:

PRODUCTS	CAT. #	SIZE
ROR1-CHO Recombinant Cell Line (High Expression)	79609-H	2 vials
ROR1-CHO Recombinant Cell Line (Low Expression)	79609-L	2 vials
Growth Medium 3B	79529	500 ml
Thaw Medium 3	60186	100, 500ml
ROR1, GST-tag	40396	10 µg
ROR2, GST-tag	40296	10 µg
ROR1, Fc-Fusion (IgG1), Avi-Tag	79481	10 µg
ROR1, Fc-Fusion (IgG1), Avi-Tag, Biotin-Labeled	79482	10 µg
ROR2, Fc-Fusion (IgG1), Avi-Tag HiP™	100029	100 µg
ROR2, Fc-Fusion (IgG1), Avi-Tag, Biotin-Labeled HiP™	100046	50 µg