

Validation data for HEK-Blue™ hACE2 cells

<https://www.invivogen.com/hek-blue-hace2-cells>

For research use only

Version 20J15-ED

HEK-Blue™ hACE2 cells were generated from the HEK-Blue™ Null1-v cells, which derive from the human embryonic kidney 293 (HEK-293) cell line. ACE2 overexpression in HEK-Blue™ hACE2 cells has been verified by qRT-PCR (**Figure 1**), and cell surface staining (**Figure 2**). Unlike their parental cell line, HEK-Blue™ hACE2 can be infected with pseudotyped lentiviral particles expressing the SARS-CoV-2 Spike protein (**Figure 3**).

Validation of ACE2 overexpression by qRT-PCR

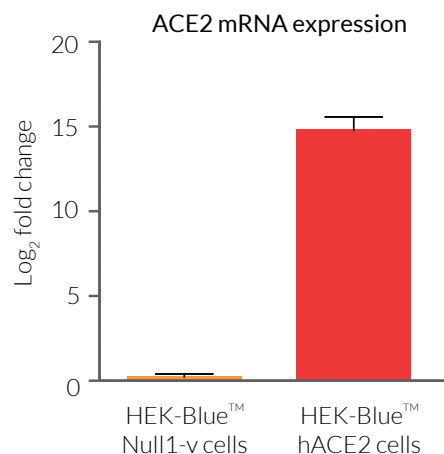


Figure 1: hACE2 mRNA expression in HEK-Blue™ hACE2 cells. Total mRNA was extracted from $\sim 5 \times 10^5$ HEK-Blue™ Null1-v and HEK-Blue™ hACE2 cells and ACE2 mRNA was amplified using quantitative (q)RT-PCR. Data are represented as the log₂ fold change comparing hACE2 expression to a house keeping gene.

Validation of ACE2 surface expression by FACS

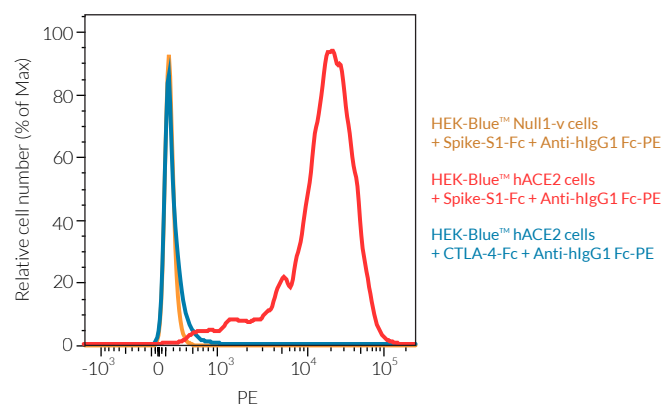


Figure 2: Surface expression of hACE2 by HEK-Blue™ hACE2 cells. $\sim 5 \times 10^5$ HEK-Blue™ Null1-v and HEK-Blue™ hACE2 cells were incubated with 1 μ g of Spike-S1-Fc or CTLA-4-Fc fusion proteins for 1h at 4°C. Cells were then washed and incubated with 0.5 μ g of a goat anti-hlgG1-Fc antibody coupled to PE for 1h at 4°C. Cell surface staining was analyzed by flow-cytometry.

Infection of HEK-Blue™ hACE2 cells by SARS-CoV-2 Spike pseudotyped lentiviral particles

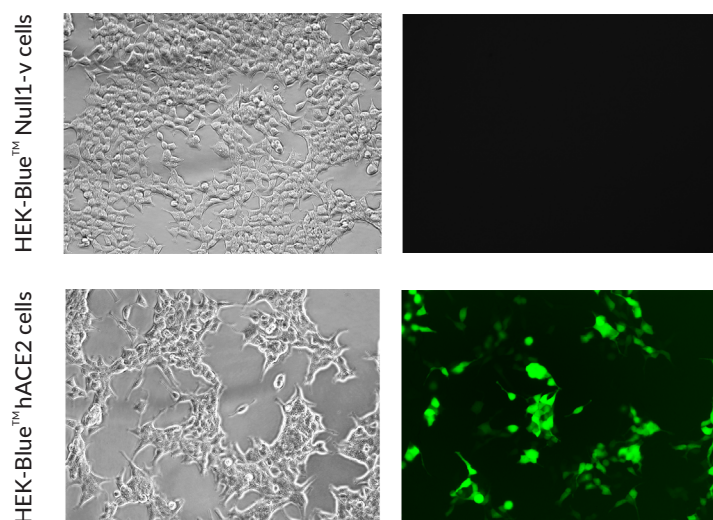


Figure 3: Specific infection of HEK-Blue™ hACE2 cells by Spike pseudotyped lentiviral particles. $\sim 2.5 \times 10^5$ HEK-Blue™ Null1-v and HEK-Blue™ hACE2 cells were cultured in the presence of Spike (SARS-CoV-2) pseudotyped GFP lentiviral particles. After 72h, the transduction efficiency of the Spike pseudotyped GFP particles was evaluated by fluorescence microscopy.

TECHNICAL SUPPORT

InvivoGen USA (Toll-Free): 888-457-5873
InvivoGen USA (International): +1 (858) 457-5873
InvivoGen Europe: +33 (0) 5-62-71-69-39
InvivoGen Hong Kong: +852 3-622-34-80
E-mail: info@invivogen.com



Any questions about our cell lines?
Visit our FAQ page.

InvivoGen
www.invivogen.com