

### PM-HEK293-ACE2 Ready-to-use Engineered Cell Line





#### Description

The encoded protein is a functional receptor for the spike glycoprotein of the human coronaviruses SARS, the human respiratory coronavirus NL63 and is also a receptor for SARS-CoV-2 RBD protein.

The ACE-2 protein encoded by this gene belongs to the angiotensin-converting enzyme family of dipeptidyl carboxydipeptidases and has considerable homology to human angiotensin 1 converting enzyme. This membrane protein catalyzes the cleavage of angiotensin I into angiotensin 1-9, and angiotensin II into the vasodilator angiotensin 1-7. The organ- and cell-specific expression of this gene suggests that it may play a role in the regulation of cardiovascular and renal function, as well as fertility.

This lentiviral vector encodes full length of ACE-2 protein (amino acids 1-805) and contains a puromycin gene allowing generation of different stable cell lines.

The HEK293 cell line is an immortalized human embryonic kidney line which produces high levels of protein expression after transfection or transduction with different constructs. The cells were transduced with a lentivirus expressing ACE2, and checked for expression of ACE2 by FACS using biotinylated RBD protein (Figure 1) and then sorted for generation of cell line with stable ACE-2 expression.

Specifications	
Gene ID	Q9BYF1.2
Expression Host	HEK293 cells
Species	Human
Formulation	1 x10° cells in 1 mL of 10% DMSO in FBS
Storage	Store in liquid nitrogen.

#### **Application**

Examine RBD binding to ACE2 or other assays.

#### References

Kruse R. Therapeutic strategies in an outbreak scenario to treat the novel coronavirus originating in Wuhan, China. 2020. F1000Research, 9:72 Last updated: 31 JAN 2020

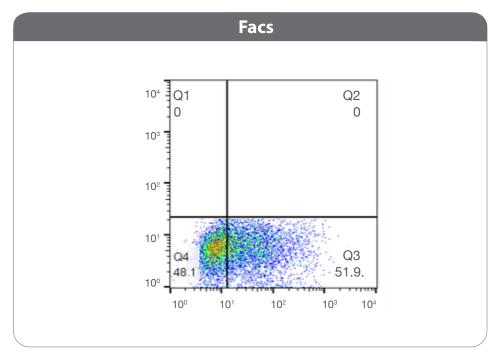




## PM-HEK293-ACE2 Ready-to-use Engineered Cell Line

# **Products and Services** ■ Mouse Monoclonal Antibody **Bispecific Antibody** Human Antibody Hybridoma Sequencing Polyclonal Antibody

#### **Data**



**Figure 1.** Flow cytometry staining showing about 52% expression of ACE2 detected by biotinylated RBD-His protein (Pr40005B). In addition, cell line was checked for expression of ACE-2 using ACE-2 Ab (not shown).