

BACKGROUND

Discoidin domain receptors (DDRs) are a subfamily of transmembrane collagen-binding receptor tyrosine kinases (RTK). DDRs are distinguished from other RTKs by a discoidin domain in their extracellular region, which functions as a lectin in the slime mold *Dictyostelium discoideum*. There are two genes that code for DDRs in humans, DDR1 and DDR2. Each DDR contains an extracellular region containing the ligand-binding discoidin domain, a stalk region, and a single transmembrane region, as well as a cytoplasmic domain consisting of a juxtamembrane region and a tyrosine kinase domain.¹ Expression of DDR1 protein is restricted to epithelial cells, particularly in the kidney, lung, gastrointestinal tract, and brain. Aberrant expression and signaling of DDR1 proteins have been implicated in several human diseases linked to accelerated matrix degradation and remodeling, including tumor invasion, atherosclerosis, and liver fibrosis.² The activation and autophosphorylation of DDR1 are achieved by treatment of cells with triple-helical collagens.³ DDR1 has been found to play a role in cell attachment, migration, cell survival and proliferation.

References:

1. Abdulhusein, R. et al: J. Biol. Chem. 283:12026-12033, 2008.
2. Sakamoto, O. et al: Eur Respir J., 17:969-974, 2001.
3. Abdulhusein, R. et al: J. Biol. Chem. 279:31462-31470, 2004.

TECHNICAL INFORMATION

Source:

Affinity purified DDR1 Antibody is a rabbit polyclonal antibody raised against the epitope near the human DDR1 carboxyl terminal sequence.

Specificity and Sensitivity:

This antibody detects human DDR1 proteins in transfected cell lysate.

Storage Buffer: PBS and 30% glycerol

Storage:

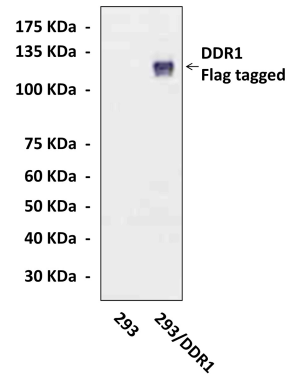
Store at -20°C for at least one year. Store at 4°C for frequent use. Avoid repeated freeze-thaw cycles.

APPLICATIONS

Application:	*Dilution:
WB	1:1000
IP	n/d
IHC (Paraffin)	n/d
ICC	n/d
FACS	n/d

**Optimal dilutions must be determined by end user.*

QUALITY CONTROL DATA



The lysate from HEK293 cells transfected with human DDR1 expression vector, were subjected to Western Blot analysis using DDR1 Antibody.

