

## **Product datasheet for TA336782**

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# **CCR2 Rabbit Polyclonal Antibody**

#### **Product data:**

Product Type: Primary Antibodies

Applications: FC, ICC/IF, IHC, WB

Recommended Dilution: Immunocytochemistry/ Immunofluorescence: 1:50, Western Blot: 2 ug/ml,

Immunohistochemistry-Paraffin: 5 ug/ml, Immunohistochemistry: 5 ug/ml, Flow Cytometry: 5

ug/ml

Reactivity: Human, Rat

**Host:** Rabbit

Clonality: Polyclonal

**Immunogen:** Synthetic peptide made to an N-terminal portion of the human CCR2 protein (within residues

20-100). [Swiss-Prot# P00338]

**Formulation:** PBS, 30% glycerol, 0.1% Sodium Azide. Store at -20C. Avoid freeze-thaw cycles.

**Concentration:** lot specific

**Purification:** Immunogen affinity purified

Conjugation: Unconjugated

**Storage:** Store at -20°C as received.

**Stability:** Stable for 12 months from date of receipt.

Database Link: NP 000639

Entrez Gene 1231



Background:

CCR2 is a major chemokine receptor expressed on monocytes and its activation through its ligands MCP1, MCP2, MCP3 and MCP4 (systematic names CCL2, CCL8, CCL7 and CCL13, respectively) stimulates the migration of monocytes across the vascular wall into tissues wherein they facilitate chronic inflammation. CCR2 is a member of GPCR1 family and is upregulated by CREB3. It is a multi-pass membrane protein found in cell membrane, and besides monocytes, it is also found on other cell types like NK cells, macrophages, immature dendritic cells, gamma delta T cells, and activated T cells (including Th17 cells). There are two alternatively spliced forms of CCR2: CCR2A - the major isoform expressed by mononuclear cells and vascular smooth muscle cells; and CCR2B - expressed predominantly by monocytes and activated NK cells. CCR2 has both pro-inflammatory (mediated by APC and T cells) and anti-inflammatory (mediated by regulatory T cells) activities. Besides inflammation, it has been implicated several pathologies including HIV-1/AIDS, autoimmune disorders (psoriasis, rheumatoid arthritis, and multiple sclerosis), pulmonary diseases (asthma, COPD), vascular disease and cancer (prostate cancer).

Synonyms: CC-CKR-2; CCR2A; CCR2B; CD192; CKR2; CKR2A; CKR2B; CMKBR2; MCP-1-R

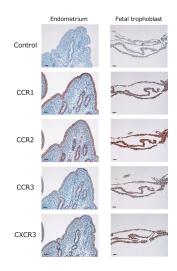
**Note:** This CCR2 antibody is useful for Flow Cytometry, Immunohistochemistry-Paraffin and

Immunocytochemistry/Immunofluorescence applications. Some customers have also

reported success using this antibody for WB on rat and human lysates.

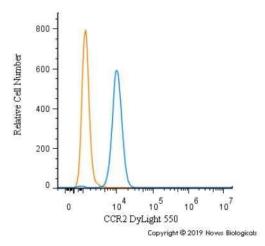
**Protein Families:** Druggable Genome, GPCR, Transmembrane

### **Product images:**

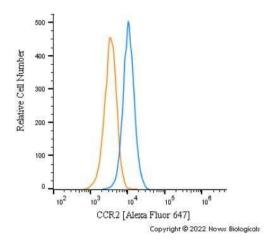


Localization of CCR1 (binds to CCL8, CCL14, and CCL16), CCR2 (binds to CCL2, CCL8, and CCL16), CCR3 (binds to CCL11), and CXCR3 (binds to CXCL10) in the bovine endometrium and fetal trophoblast obtained from cows in their 18th day of pregnancy. Intensive immunoreactivity was observed in endometrial epithelial cells, glandular epithelial cells, or fetal trophoblast. No positive immunoreactivity was observed in the negative control (Control). Scale bar = 50 µm.

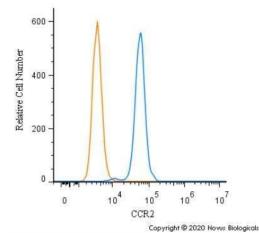




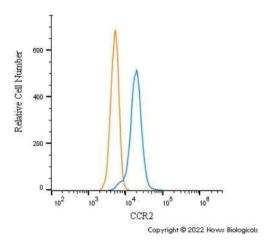
Flow Cytometry: CCR2 Antibody TA336782 - An intracellular stain was performed on THP-1 cells with CCR Antibody TA336782R (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to DyLight 550.



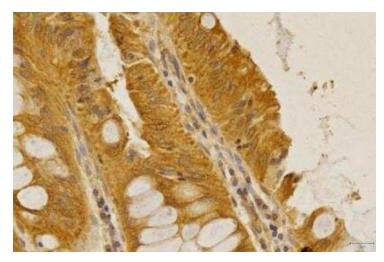
Flow Cytometry: CCR2 Antibody - BSA Free TA336782 - An intracellular stain was performed on U2-OS cells with CCR2 TA336782AF647 (blue) and a matched isotype control NBP2-24891 (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 2.5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 647.



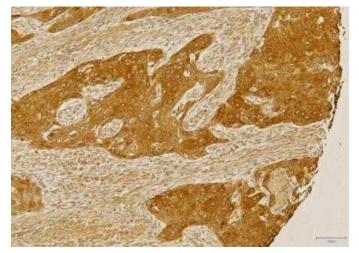
Flow Cytometry: CCR2 Antibody TA336782 - An intracellular stain was performed on THP-1 cells with CCR2 Antibody TA336782 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 1.0 ug/mL for 30 minutes at room temperature, followed by Rabbit IgG (H+L) Cross-Adsorbed Secondary Antibody, Dylight 550 (SA5-10033, Thermo Fisher).



Flow Cytometry: CCR2 Antibody - BSA Free TA336782 - An intracellular stain was performed on U2-OS cells with CCR2 TA336782 (blue) and a matched isotype control NBP2-24891 (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 2.5 ug/mL for 30 minutes at room temperature, followed by Rabbit IgG (H+L) Cross-Adsorbed Secondary Antibody, Dylight 550 (SA5-10033, Thermo Fisher).

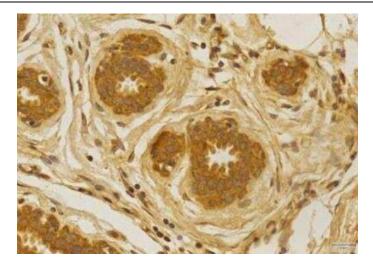


Immunohistochemistry-Paraffin: CCR2 Antibody TA336782 - Analysis of FFPE tissue section of human rectal adenocarcinoma using 5 ug/ml concentration of CCR2 antibody. The cancerous cells in the section developed a uniform but specific CCR2 immunopositivity whereas a weak staining was seen in the tumor stroma cells. [Magnification 40X]

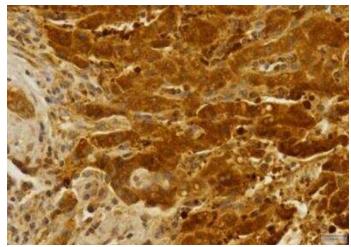


Immunohistochemistry-Paraffin: CCR2 Antibody TA336782 - Analysis of FFPE section of human esophageal squamous cell carcinoma (SCC) using 5 ug/ml concentration of CCR2 antibody. Strong cytoplasmic-membranous immune-staining was observed in SCC cells and a relatively weaker staining was seen in the tumor stroma cells. [Magnification 10X]

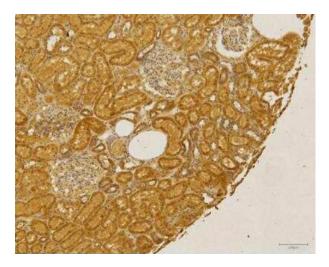




Immunohistochemistry-Paraffin: CCR2 Antibody TA336782 - Analysis of FFPE tissue section of human normal breast using 5 ug/ml concentration of CCR2 antibody. The breast ductal/acinar epithelial cells showed a strong cytoplasmic-membranous CCR2 immune-positivity, whereas the intra-lobular connective tissue depicted weak staining. [Magnification 40X]



Immunohistochemistry-Paraffin: CCR2 Antibody TA336782 - Analysis of FFPE tissue section of human liver cancer using 5 ug/ml concentration of CCR2 antibody. Intense cytoplasmic-membranous immune-staining was observed in the cancerous hepatocytes, whereas the staining was relatively weak in the cells adjacent to the fibrotic areas. [Magnification 40X]



Immunohistochemistry-Paraffin: CCR2 Antibody TA336782 - Analysis of FFPE tissue section of human normal kidney using 5 ug/ml concentration of CCR2 antibody. Strong cytoplasmic immunostaining was observed in the various renal cells (especially from tubules/ducts epithelium). The cells of Bowman's capsule depicted a very weak cytoplasmic staining for CCR2 protein. [Magnification 10X]