Product Name
Monoclonal Human Anti-Matrix metallopeptidase (MMP) -14, Immunoglobulin, clone 34-A4

CAT No.
MQR 2.701-100

LOT No.
15009

Quantity
100 µg

Edition: February 26th, 2015

orders@immunoprecise.com
www.immunoprecise.com

Intended use
This product is for research use only. NOT for use in diagnostic or therapeutic procedures.
This product is tested for use in enzyme-linked immunosorbent assay (ELISA), immunofluorescence, FACS, western blot and in a MMP-14 inhibition assay.

Reagent provided
The antibody has been lyophilized in a 10 mM ammonium bicarbonate buffer.

Isotype
Human IgG1λ.

Immunogen
Matrix metallopeptidase (MMP) -14. [i]

Specificity
Specificity has been tested in ELISA (figure 1), immunofluorescence (figure 2), FACS (figure 3), western blot (figure 4) and in a MMP-14 inhibition assay (Figure 5).

Purity
Protein A purified.

Precautions
1. For professional users.
2. As with any product derived from biological sources, proper handling procedures should be used.
3. The product may be used in different techniques and in combination with different sample types and materials, therefore each individual laboratory should validate the applied test system.

Preparation of the antibody
- Recommended antibody concentration: 0.5 mg/ml
- Recommended solvent; 100 mM PBS or Tris-HCl, pH 7.0.
- Additional sodium azide (up to 0.05%) is recommended for prolonged storage.
- For a 0.5 mg/ml antibody concentration, dissolve in 200 µl buffer.

NOTE: Be careful opening the vial since the antibody resides in a vacuum.

Storage instructions
For long term storage keep lyophilized batch at -20°C
After dissolving store at 2-8°C. For prolonged storage add sodium azide to 0.05%.

Application guidelines
ELISA: 0.1 – 0.5 µg/ml
Immunofluorescence: 1-10 µg/ml
FACS: 10 µg/ml
WB: 10 µg/ml
MMP-14 inhibition assay: 25 µg/ml
Unless the stability in the actual test system has been established, it is recommended to dilute the product immediately before use.

Relevance
Proteins of the matrix metalloproteinase (MMP) family are involved in the breakdown of extracellular matrix in normal physiological processes, such as embryonic development, reproduction, and tissue remodeling, as well as in disease processes, such as arthritis and metastasis.

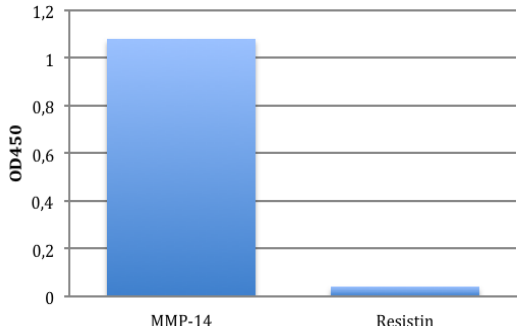

Figure 1: Specificity of MMP-14 Immunoglobulin, clone 34-A4, determined by ELISA. Antibody diluted to 0.1 µg/ml in PBS containing 0.05% tween-20 and 1% BSA was tested on MMP-14 and resistin.

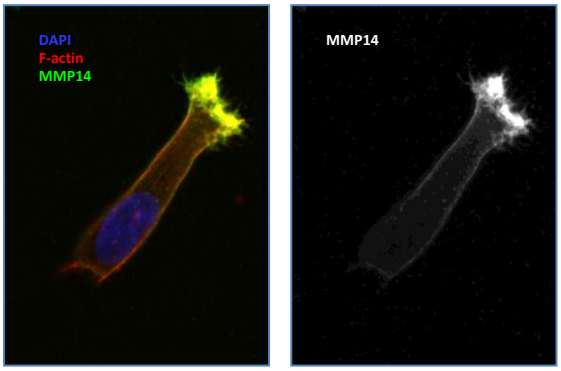

Figure 2: Specificity of MMP-14 Immunoglobulin (2.5 µg/ml), clone 34-A4 was determined by immunofluorescence. Bright MMP14 staining was observed at the moving front of the cells, the site where collagen degradation takes place. HT23 cells (over expressing MMP14) were covered in collagen (PureColl, 1.7 mg/ml) and stained with MQR2.701 (green), F-actin (red) and DAPI (blue) prior to fixation in 4% PFA.

Product Name
Monoclonal Human Anti-Matrix metallopeptidase (MMP) -14, Immunoglobulin, clone 34-A4

CAT No.
MQR2.701-100

LOT No.
15009

Quantity
100 µg

Edition: February 26th, 2015

orders@immunoprecise.com
www.immunoprecise.com

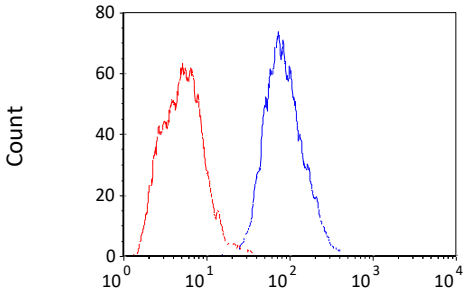

Figure 3: Specificity of MMP-14 Immunoglobulin (10 µg/ml), clone 34-A4 was determined by FACS.
HT23 cells (over expressing MMP14) were stained with MQR2.701 (blue line) or an isotype matched control (red line).

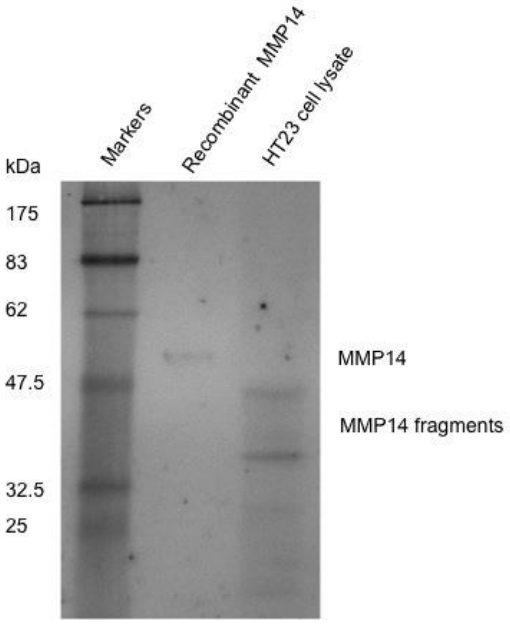

Figure 4: Specificity of MMP-14 Immunoglobulin (10 µg/ml), clone 34-A4 was determined by western blot.
Recombinant MMP-14 and HT23 cell lysate (over expressing MMP14) were stained with MQR2.701.

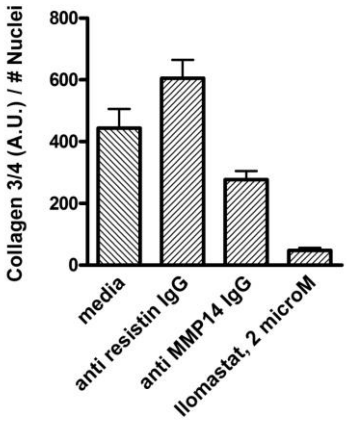

Figure 5: Specificity of MMP-14 Immunoglobulin (25 µg/ml), clone 34-A4 inhibits MMP-14 's enzymatic activity.
HT23 cells (over expressing MMP14) were incubated with media (negative control), anti-resisitin IgG (isotype matched control antibody), anti-MMP-14 IgG (MQR2.701) or with ilomostat (2µM, positive control) and seeded into a polymerizing gel. Incubation of MMP-14 overexpressing cells with MQR2.701 shows 50% inhibition of collagen degradation compared to the isotype matched control antibody.