Aeonian Biotech
Your choice for selective antibodies

Cat nr AE00254 **Product Datasheet**

Recombinant Mouse Antibody, clone rEGP40/1372 to:

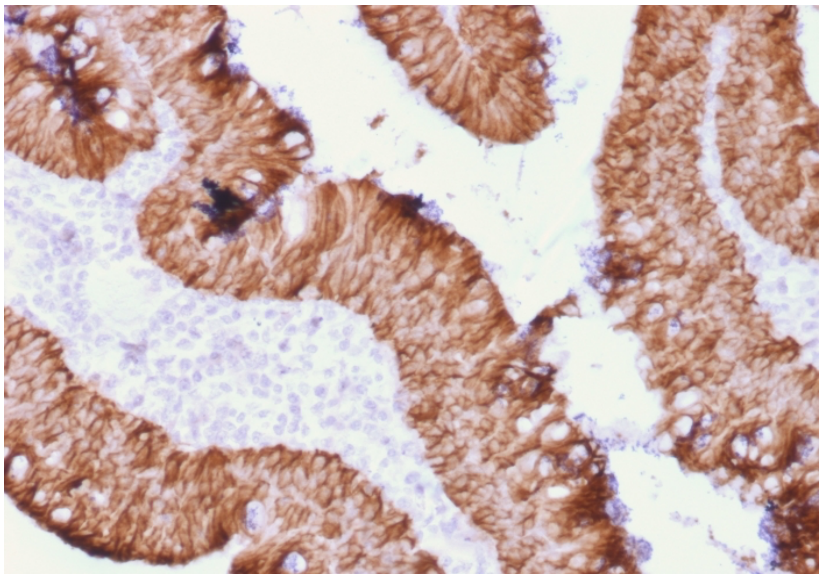
EpCAM, Epithelial Cell Adhesion Molecule

Adenocarcinoma-associated antigen; Cell surface glycoprotein Trop-1; Epithelial cell surface antigen; Epithelial glycoprotein 314; Major gastrointestinal tumor-associated protein GA733-2; Tumor-associated calcium signal transducer 1; CD326; DIAR5; EGP; EGP-2; EGP314; EGP40; Ep-CAM; ESA; hEGP314; HNPCC8; KS1/4; KS 1/4 antigen; KSA; M4S1; MIC18; MK-1; TACSTD1; TROP1

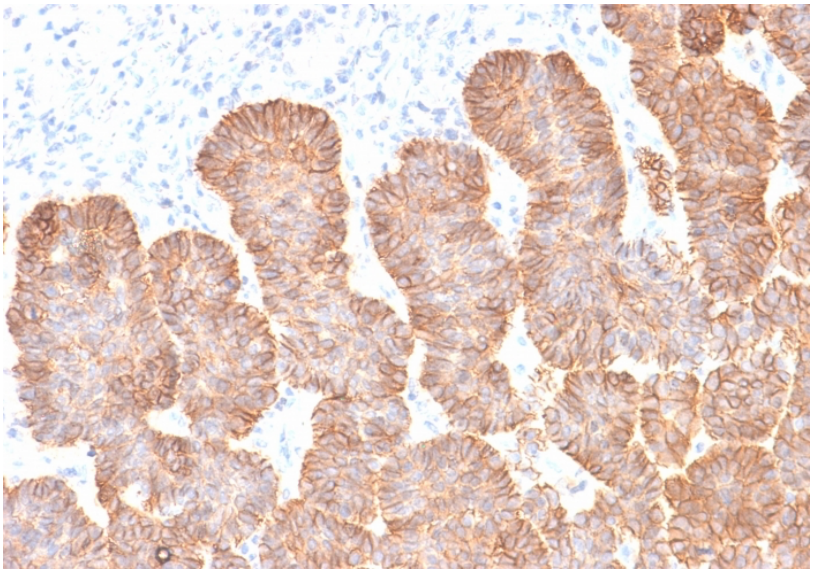
Cellular localization	Plasma membrane, cell surface
Official Symbol (Gene)	EPCAM
GeneID	4072
SwissProt	P16422
Confirmed Applications	IHC, PA, WB
Positive controls	Carcinoma, MCF7
Aeonian Rating©	92
Purification	By Protein G from bioreactor concentrate
Formulation	☐ 200ug IgG/ml in PBS, 0.05% BSA, 0.05% azide (20ug or 100ug) ☐ 1mg IgG/ml in PBS (100ug or contact us for quotation)
Amount	☐ 20ug ☐ 100ug
Isotype	Mouse IgG1, kappa
Confirmed species reactivity	Human
Immunogen	Recombinant fragment around aa 77-202 of human EpCAM protein (exact sequence is proprietary)
Epitope	Extracellular domain within aa 77-202 region
Storage instructions	Avoid repeated freeze/thaw cycles. For long term storage, keep small aliquots at -20C or -80C and keep one aliquot at 4C for daily experimentations. Azide will preserve antibody at 4C for 6-12 months, when kept away from direct sun light.
Expiration	Integrity warranted for 24 months after purchase when handled and stored according to instructions, see below.
Warranty	This product is only warranted for the specifications as described in this product sheet and only when the product is handled and stored according to instructions. User should validate this antibody in the application and tissue/cell type as required, after confirmation of integrity upon receipt is obtained by reproducing the performance as described below. Should such confirmation not be attempted, any warranty is void. In case of non-conformance, user needs to contact us immediately for replacement or refund.
Liability	This product is for in vitro research use only. Any other applications, such as diagnostics or therapeutics, or in vivo experiments, and the validation of this product therein, are solely at the responsibility of the buyer/user.
Product performance	see next pages

Product data:

ImmunoHistoChemistry (IHC):
This product was successfully used to stain epithelial cells in human colon mass and melanoma sections.
Recommended concentration: 1-3ug/ml

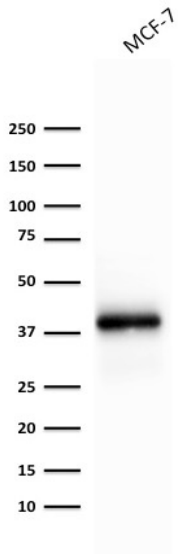


Formaldehyde-fixed, paraffin-embedded human colon mass stained with EpCAM Mouse Recombinant Antibody AE00254 at 1-2ug/ml for 30 minutes at RT. Epitope retrieval: boiling at pH6 for 10-20 min followed by 20 min cooling. DAB staining by HRP polymer.



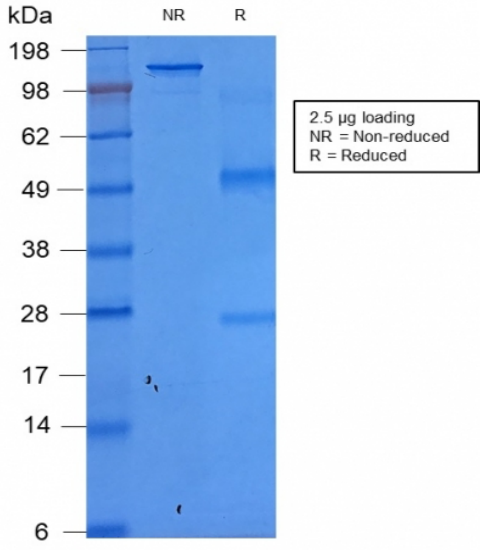
Formaldehyde-fixed, paraffin-embedded human melanoma stained with EpCAM Mouse Recombinant Antibody AE00254 at 1-2ug/ml for 30 minutes at RT. Epitope retrieval: boiling at pH6 for 10-20 min followed by 20 min cooling. DAB staining by HRP polymer.

Western Blot (WB):
This product was successfully used to stain an approx. 40kDa band in lysates of cell line MCF7.
Recommended concentration: 1-3ug/ml



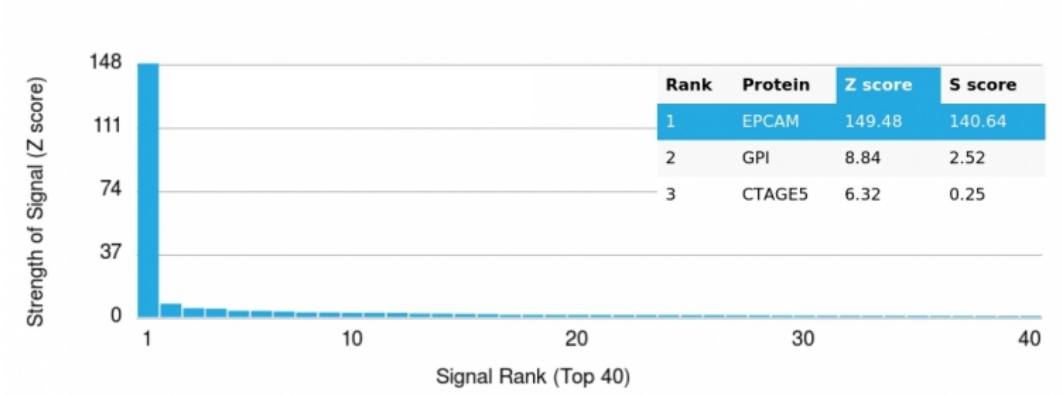
Western Blot of MCF7 lysate (30ug) stained with EpCAM Mouse Recombinant Antibody AE00254 at 1ug/ml (1h at ambient temp). ECL staining by HRP.

SDS-PAGE Analysis of Purified EpCAM Mouse Recombinant Antibody AE00254. Confirmation of Purity and Integrity of Antibody.



Integrity of the purified antibody AE00254 under non-reduced and reduced conditions, showing intact IgG at around 150kDa (NR) and intact heavy and light chains at 50kDa and 25kDa resp. (R).

Specificity and selectivity of AE00254 to EpCAM were tested against >19,000 full-length human proteins on a human protein array. A protein BLAST search against H. sapiens revealed the following closely related protein: TROP2. This protein was part of the array used and showed no cross-reactivity signals.



Rank	Protein	Z score	S score
1	EPCAM	149.48	140.64
2	GPI	8.84	2.52
3	CTAGE5	6.32	0.25

Cross-reactivity assessment of EpCAM Mouse Recombinant Antibody AE00254 (1ug/ml) on CDI's Protein Array containing more than 19,000 full-length human proteins.
The Z-score represents the strength of a signal that an antibody (through a fluorophore-tagged secondary reagent) produces when binding to a particular protein on the array. Z-scores are in units of standard deviations (SD's) above the mean value of all signals generated on that array. When Z-scores are arranged in descending order, the difference between two successive values will be the S-score for the first. Thus, the S-score represents the relative specificity of the antibody to its intended target. An antibody is considered specific to its intended target, when it has an S-score of at least 2.5. For example, if an antibody binds to intended protein X with a Z-score of 43 and to the cross-reacting protein Y with a next Z-score of 14, then the S-score for the antibody to intended target X equals 29 (43-14).