

## Anti-Endothelial Progenitor Cell [UG1] Standard Size Ab01195-23.0

This full-length, chimeric rabbit antibody was made using the variable domain sequences of the original Chicken scFv format, for improved compatibility with existing reagents, assays and techniques.

**Isotype and Format:** Rabbit IgG, Lambda

**Clone Number:** UG1

**Alternative Name(s) of Target:** gUG1; colony-forming unit Hill cells; CFU-Hills; circulating angiogenic cells; CACs; endothelial colony-forming cells; ECFCs; early outgrowth cells; early EPCs; late outgrowth cells; late EPCs

**UniProt Accession Number of Target Protein:**

**Published Application(s):** FC

**Published Species Reactivity:** Human

**Immunogen:** Peripheral blood was obtained from human donors. The PBMCs were obtained by density centrifugation and cultured. Two ISA brown chickens were then injected intradermally and after 50 days the spleen and bone marrow was harvested. RT-PCR was performed on cells from the spleen and bone marrow which was used to generate a cDNA library. Primers were then used to amplify the VL and VH genes and this was assembled in an scFv format. Phage libraries were generated and the library was biopanned. The biopanned library was then transformed into XL1 blue bacteria and colonies chosen at random from these.

**Specificity:** UG1 binds predominantly to a subset of CD14<sup>+</sup> monocytes that mostly co-express lymphocyte markers but UG1 does not preferentially bind to cells which express receptors for proangiogenic factors.

**Application Notes:** Has been used in flow cytometry to show the population of cells that UG1 binds to. This was shown to be almost exclusively CD14<sup>+</sup> and CD34<sup>-</sup> and shows no preference for cells expressing Tie-2 and CD309 which recognise angiogenic peptides. There was also a higher proportion of CD56, CD3, and CD19 (Bowes et al).

**Antibody First Published in:** Bowes et al Developing cell-specific antibodies to endothelial progenitor cells using avian immune phage display technology. J Biomol Screen. 2011 Aug;16(7):744-54

[PMID:21593485](#)

**Note on publication:** Describes the generation of a library of phage displays and scFvs against a heterogeneous population of peripheral blood mononuclear cells (PBMC). It goes on to discuss the characterisation of three of these antibodies and the codon optimisation of UG1.

## Product Form

**Size:** 200 µg Purified antibody.

**Purification:** Protein A affinity purified

**Supplied In:** PBS with 0.02% Proclin 300.

**Storage Recommendation:** Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.

**Concentration:** 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.