CD34 (QBend10)

Format	Catalog No.	Pack size	Dilution
Concentrated	G42055 A, B, C	0.1, 0.5, 1.0 mL	1:100 - 200
Prediluted	G42055 AA, BB	6.0, 3.0 mL	Ready to use

ANTIBODY SPECIFICATIONS

- **HOST SPECIES**: Mouse
- **CLONE**: QBend/10
- **ISOTYPE**: IgG1/Lambda
- **CELLULAR LOCALIZATION**: Membrane
- **IMMUNOGEN**: Detergent solubilized vesicular suspension prepared from human term placenta
- **MOLECULAR WEIGHT**: ~ kDa
- **SPECIES REACTIVITY:** Human, Rhesus Monkey and Cynomolgus Monkey
- **POSITIVE CONTROLS**: Jurkat or KG-1 cells. Human tonsilor angiosarcoma

INTENDED USE

This antibody is intended **for research use only (RUO)** and is not approved for diagnostic or therapeutic applications. It is optimized for the detection of CD34 protein in formalin-fixed, paraffin-embedded (FFPE) human tissues by immunohistochemistry (IHC).

SUMMARY AND APPLICATION

This MAb identifies CD34, a single-chain, transmembrane, highly glycosylated protein that is 90–120 kDa in size. Class I, Class II, and Class III are the three primary classifications for the epitopes of monoclonal antibodies to CD34 based on their varying susceptibilities to degradation by particular enzymes. The epitope of this class II antibody is sensitive to chymopapain and glycoprotease but resistant to neuraminidase. One indicator of pluripotent haematopoietic stem or progenitor cells is the expression of CD34. With the differentiation of lineage-committed progenitors, its expression steadily diminishes. When staining blasts in acute myeloid leukaemia, CD34 is the preferred marker. Furthermore, soft tissue tumours such gastrointestinal stromal tumours and isolated fibrous tumours express CD34. The vascular endothelium also expresses it. This chemical seems to be expressed more by proliferating endothelial cells than by non-proliferating ones. Anti-CD34 has a poorer specificity but detects more than 85% of angiosarcoma and Kaposi's sarcoma.

SCIENTIFIC BACKGROUND

This MAb identifies CD34, a single-chain, transmembrane, highly glycosylated protein that is 90–120 kDa in size. Class I, Class II, and Class III are the three primary classifications for the epitopes of monoclonal antibodies to CD34 based on their varying susceptibilities to degradation by particular enzymes. The epitope of this class II antibody is sensitive to chymopapain and glycoprotease but resistant to neuraminidase.

RECOMMENDED USAGE

- **IHC Protocol Highlights:**

  - Dilution: 1–2 µg/mL
  - Incubation: 30 minutes at room temperature
  - Antigen Retrieval: Heat in 10 mM Tris with 1 mM EDTA (pH 9.0) at 95°C for 45 minutes, followed by cooling
- **Specimen Type**: FFPE sections, preferably ~4 µm

FORMULATION & STORAGE:

- Buffer: 10 mM PBS, 0.05% BSA, 0.05% sodium azide
- Storage:
  - Dilution: 1–2 µg/Ml
  - Without azide: –20 to –80°C
- Shelf Life: 24 months under proper conditions
- Hazard Classification: Non-hazardous; no MSDS required

LIMITATIONS

- Interpretation must be made by a qualified pathologist
- Tissue fixation and handling may affect staining quality
- Negative results do not always indicate absence of antigen—consider panel testing

PRECAUTIONS

- Contains 0.05% sodium azide – avoid ingestion and contact with skin or mucosa
- Wear gloves and avoid contact with eyes or mucosa
- Do not use reagents past expiration or if packaging appears compromised
- Do not pipette by mouth or reuse slides/containers without proper sterilization

TECHNICAL SUPPORT

For technical assistance, please contact Genebio Solution's Technical Support at www.genebiosolution.com