

Docket #: S08-139

Anti-AF5 monoclonal antibody

Researchers in Dr. Michael Cleary's laboratory at Stanford University have developed a highly specific monoclonal antibody for AF5, a proto-oncoprotein associated with pediatric and adult acute leukemia. Chromosomal translocations of the MLL gene account for 5%-10% of acute leukemias and are generally associated with poor prognosis. AF5 is a member of a small family of highly conserved proteins that are thought to be involved in transcriptional regulation and are frequently fused with MLL. These fusion proteins can form a higher order complex with additional factors to promote leukemic transformation. This antibody could be used for research, diagnostic or therapeutic applications.

Stage of Research

The AF5 antibody has been used as a tool to facilitate biochemical and mechanistic studies regarding the role of the AF5 protein in leukemia pathogenesis.

Applications

- **Research** - tool for biochemical studies of AF5 functions in gene regulation and cancer
- **Diagnostic** - covalent conjugation with ligands for leukemia detection
- **Therapeutic** - covalent conjugation with ligands for drug targeting

Advantages

- **Highly specific**

Publications

- Yokoyama A, Lin M, Naresh A, Kitabayashi I, Cleary M. [A Higher-Order Complex Containing AF4 and ENL Family Proteins with P-TEFb Facilitates Oncogenic and Physiologic MLL-Dependent Transcription](#). Cancer Cell. 2010 February 17; 17(2): 198-212.

Innovators

- Michael Cleary

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