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Validated Antibody Database: a curated database of antibodies cited in formal publications

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Research antibodies have a serious quality problem, which is one of the major contributors to the irreproducibility of published reports. One of the hindrances in drug abuse research is the lack of specific antibodies against, for example, GPCR proteins or histone methylforms. Labome organizes antibody applications cited in formal publications to develop Validated Antibody Database (VAD). VAD, a manually curated database, compiles commercial and non-commercial antibodies whose specificities and applications have been independently reported in published results. Labome prioritizes the curation of articles with knockout studies and monoclonal antibodies. One of the benefits of our curation effort is the identification of cross-reactive species and novel applications for antibodies, which are often developed for human/mouse proteins and tested by suppliers for a limited number of applications. Labome registers many antibodies having cross-reactivities with model organisms such as flies, worms, zebrafish, and frogs and with novel applications from the literature. VAD, as of Oct 2018, is based on 61175 formal publications, and includes 41039 antibodies against proteins from 7616 human genes. The quantity of a batch of any polyclonal antibody is always limited, Labome purges data for polyclonals from articles over ten years old and removes records about discontinued products to ensure the relevancy of VAD antibody information. VAD is freely accessible for online browsing.