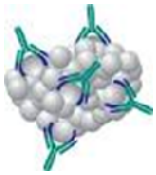
# *CYP450-GP*



## *CYP ImmunoInhibit Kit*

**PRODUCT Hu-A011A, Hu-A011B✚**

Inhibitory Antibodies to CYP1A2, CYP2B6, CYP2C8, CYP2C9,
CYP2C19, CYP2D6 & CYP3A4
Developed in Rabbits and Mice, IgG Fraction

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The *CYP ImmunoInhibit Phenotyping Kit* from CYP450-GP is designed to perform reaction phenotyping studies with human liver microsomes (HLMx). P450 reaction phenotyping is a regulatory agency requirement for investigational drugs in order to gauge their potential to elicit drug-drug interactions. The inhibitory polyclonal and monoclonal P450 antibodies comprising the kit are potent tools for assessing whether a particular P450 catalyzes the metabolism of a given therapeutic agent/lead compound. This panel of highly-specific P450 antibodies, upon non-competitive, irreversible binding to their cognate enzyme, markedly decreases (up to 90%) that enzyme's metabolic activity. In each case, the optimal inhibition observed with the seven different antibodies comprising the kit is at least 80%, thus enabling the description of P450s that contribute $\geq$ 25% to an investigational drug's elimination. The *CYP ImmunoInhibit* IgGs are effective not only against P450s found in native HLMx but can also be used with purified, reconstituted P450 enzymes and heterologously-expressed P450s (e.g., Supersomes).

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Evidence suggests that specific inhibitory P450 antibodies, such as those comprising the *CYP ImmunoInhibit Kit*, may be superior to selective chemical inhibitors, especially in the case of newer investigational agents that possess enhanced metabolic stability. These drugs require prolonged incubation times with high concentrations of HLMx in order to accurately evaluate parent depletion and/or metabolite formation. Under these conditions, many chemical inhibitors are consumed and thereby lose their inhibitory properties whereas antibodies, which are irreversible inhibitors, do not exhibit this effect.

- *CYP ImmunoInhibit Kit* antibodies can be employed in metabolite formation studies as well as in substrate depletion experiments with HLMx when labeled substrate and/or authentic metabolite standards are not available. The kit can also be utilized in various high-throughput formats.

- Since assay conditions used with *CYP ImmunoInhibit Kit* antibodies employ saturating substrate concentrations, the maximum metabolic contribution of each target P450 can

be ascertained. The results obtained are easily interpreted and do not require extrapolation (e.g., ISEF or RAF) to assess the contribution of a given microsomal P450 enzyme to lead compound metabolism.

- The *CYP ImmunoInhibit Kit* enables the identification of investigational drugs that are metabolized by two or more P450s, partner drugs metabolized by a common P450 and, importantly, drugs that are metabolized by polymorphic P450 enzymes.

✣Please see the **SPECIFICATIONS** section for the *CYP ImmunoInhibit Kit* (Hu-A011A, Hu-A011B) product attribute sheets. An up-to-date handbook for the Kit is given in the **PRODUCT MANUAL** section.

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