

## CYP450 3A4 / 3A5

### CLINICAL RELEVANCE

- CYP450 3A4 and 3A5 metabolize up to 50% of all clinical drugs, including statins, calcium channel blockers, benzodiazepines, antipsychotics, opioids, antidepressants, acetaminophen, and chemotherapeutics.
- 3A4/ 3A5 metabolic abnormalities exist for more than 1 in 100 patients.
- CYP3A4 and CYP3A5 are believed to be the predominant cytochrome P450s expressed in adult human liver.
- The FDA recommends 3A4/ 3A5 genetic testing prior to initiating or reinitiating treatment with Ticagrelor (Brilinta) or Fluvoxamine in their drug labels.

### GENETIC VARIANTS

3A4	3 3A5
*1B (-392A>G)	*1D (31611C>T)
*2 (15713T>C)	*2 (27289C>A)
*3 (23171T>C)	*3 (6986A>G)
*12 (21896C>T)	*3B (3709_3710insG)
*17 (15615T>C)	*6 (14690G>A)
	*7 (27131_27132insT)
	*8 (3699C>T)
	*9 (19386G>A)

