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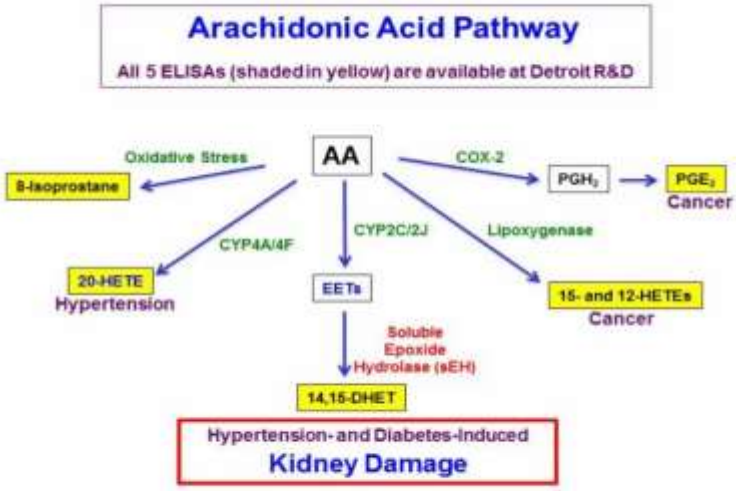
14,15-DHET and Renal Disease

14,15-DHET is a representative metabolite of **soluble epoxide hydrolase** (sEH)-mediated metabolism of EETs, generated by arachidonic acid epoxygenase activity of cytochromes P450 (CYPs) 2C and 2J (**see diagram of AA pathway below**). EETs have been shown to play a beneficial role in the physiological regulation of renal function. Increased activity of soluble epoxide hydrolase that bio-transforms beneficial EET to non-beneficial DHET induces renal damage and diabetic nephropathy[1]. Thus, blood and urinary **14,15-DHET** levels serve as a biomarker of kidney damage.
Recent studies have employed either **soluble epoxide hydrolase** knockout models[2], inhibitors of **sEH** activity[5] or overexpression of CYP2J2[3,4]. These studies all point to the important role of **soluble epoxide hydrolase** generated metabolites in renal function and disease.



References

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Detroit R&D products for studies of renal function and damage

Cat # DH1 BioTarget 14,15-DHET ELISA Kit
Cat # DH2 BioTarget 14,15-EET/DHET ELISA Kit

Cat # P2CR Polyclonal rabbit anti-P450 2C antibody
Cat # PT2C11 Monoclonal anti-P450 2C11 antibody
Cat # SEH 1 Polyclonal rabbit anti-sEH antibody