XENOTECH
A BioIVT Company

Data Sheet
Certificate of Analysis

H0606.S9(AX) Lot No. 2310288

Human Liver S9 Fraction - High AO/XO Activity
Mixed Gender, Pool of 20
1.0 mL at 20 mg protein / mL
Suspension medium: 50 mM Tris·HCl, 150 mM KCl, 2 mM EDTA

Enzyme Activities		***Rate***
Phthalazine Oxidation	(pmol/mg protein/min)	3340 ± 340
p-Vanillin Oxidation	(pmol/mg protein/min)	919 ± 35
Zaleplon Oxidation	(pmol/mg protein/min)	155 ± 1
6-Nitroquinazoline Oxidation	(pmol/mg protein/min)	764 ± 22

Values for enzyme activities were determined at a single substrate concentration and are mean ± standard deviation of three or more determinations.

To measure aldehyde oxidase (AO) activity, liver S9 samples (0.05 mg/mL) were incubated in triplicate at 37 ± 2°C for 1 minute in potassium phosphate buffer (50 mM, pH 7.4) and phthalazine (25 µM), at the final concentrations indicated. Metabolite formation was determined by validated LC-MS/MS methods with deuterated metabolites as internal standards.

To measure aldehyde oxidase (AO) activity, liver S9 samples (0.05 mg/mL) were incubated in triplicate at 37 ± 2°C for 10 minutes in potassium phosphate buffer (50 mM, pH 7.4) and p-Vanillin (20 µM), at the final concentrations indicated. Metabolite formation was determined by validated LC-MS/MS methods with deuterated metabolites as internal standards.

To measure aldehyde oxidase (AO) activity, liver S9 samples (0.25 mg/mL) were incubated in triplicate at 37 ± 2°C for 30 minutes in potassium phosphate buffer (50 mM, pH 7.4) and Zaleplon (20 µM), at the final concentrations indicated. Metabolite formation was determined by validated LC-MS/MS methods with deuterated metabolites as internal standards.

To measure xanthine oxidase (XO) activity, liver S9 samples (0.05 mg/mL) were incubated in triplicate at 37 ± 2°C for 5 minutes in potassium phosphate buffer (50 mM, pH 7.4) and 6-Nitroquinazoline (1 µM), at the final concentrations indicated. Metabolite formation was determined by validated LC-MS/MS methods with deuterated metabolites as internal standards.

Store at -80°C

CAUTION: This sample should be considered as a potential biohazard and universal precautions should be followed. Intended for *in vitro* use only.

This data sheet serves as a Certificate of Analysis and has been approved by Stephanie Helmstetter, Assistant Director.
Signature and Date: Stephanie Helmstetter 17 October 2023

Donor Information

Sample	Gender	Age (Yrs)	Race	Cause of Death
732	M	54	Caucasian	Head trauma
736	F	46	Caucasian	Anoxia
737	F	49	African American	Anoxia
766	F	38	Caucasian	Anoxia
772	M	46	Caucasian	Anoxia
780	F	48	African American	Cerebrovascular accident
795	M	69	Caucasian	Cerebrovascular accident
803	M	23	African American	Head trauma
805	F	24	African American	Anoxia
814	F	65	Caucasian	Cerebrovascular accident
815	M	52	Caucasian	Anoxia
819	F	49	Caucasian	Head trauma
838	M	51	Caucasian	Cerebrovascular accident
843	M	31	African American	Head trauma
861	F	61	Caucasian	Head trauma
871	M	30	Caucasian	Cerebrovascular accident
873	M	67	Caucasian	Anoxia
886	F	28	African American	Head trauma
887	F	32	African American	Cerebrovascular accident
899	F	49	African American	Anoxia

Serology information

- Cytomegalovirus: 15 donors tested positive
- RPR*: All donors tested negative
- HIV, HTLV, HbsAg, and HCV**: All donors tested negative

* Rapid Plasma Reagin

** Antibody to Human Immunodeficiency Virus, Antibody to Human T Cell Lymphotropic Virus, Hepatitis B Surface Antigen, Antibody to Hepatitis C Virus, respectively.