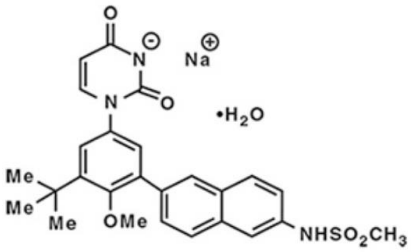
Dasabuvir PK Fact Sheet

Details

Generic Name	Dasabuvir
Trade Name	Exviera® Viekira Pak® (copackaged with ombitasvir/paritaprevir/ritonavir)
Class	HCV non-nucleoside NS5B palm polymerase inhibitor
Molecular Weight	533.57 (salt, hydrate)
Structure	

Summary of Key Pharmacokinetic Parameters

Dasabuvir must always be administered together with ombitasvir/paritaprevir/ritonavir. It is available as a single agent or copackaged with ombitasvir/paritaprevir/ritonavir.

Linearity/non-linearity	Dasabuvir exposures increased in a dose proportional manner and accumulation is minimal.
Steady state	Achieved after ~12 days of dosing.
Plasma half life	5.5-6.0 h
Cmax	1030 (31) ng/ml (geometric mean (%CV); 667 ng/ml (median based population PK analysis). Determined following administration of dasabuvir 250 mg twice daily with ombitasvir/paritaprevir/ritonavir 25/150/100 mg once daily.
Cmin	Not stated
AUC	6840 (32) ng.h/ml (geometric mean (%CV); 3240 ng.h/ml (median based on population PK analysis). Determined following administration of dasabuvir 250 mg twice daily with ombitasvir/paritaprevir/ritonavir 25/150/100 mg once daily.
Bioavailability	~70%
Absorption	Relative to the fasting state, food increased the exposure (AUC) of ombitasvir by 30% with a moderate fat meal (approximately 600 Kcal, 20-30% calories from fat) and by 22% with a high fat meal (approximately 900 Kcal, 60% calories from fat). Dasabuvir should be administered with food.
Protein Binding	>99.5%
Volume of Distribution	149 L
CSF:Plasma ratio	Not determined
Semen:Plasma ratio	Not determined
Renal Clearance	~2%
Renal Impairment	No dose adjustment is required for patients with mild, moderate, or severe renal impairment. Administration has not been studied in patients on dialysis.
Hepatic Impairment	No dose adjustment is required in patients with mild hepatic impairment (Child-Pugh A). Dasabuvir is contraindicated in moderate to severe hepatic impairment (Child-Pugh B and C).

Metabolism and Distribution

Metabolised by	CYP2C8, CYP3A4 (minor)
Inducer of	None expected.
Inhibitor of	UGT1A1 (in vivo), BCRP (in vivo), P-gp (in vitro). Inhibits UGT1A4, UGT1A6 and intestinal UGT2B7 in vitro at in vivo relevant concentrations. Does not inhibit OAT1 in vivo. Not expected to inhibit OCT1, OCT2, OAT3, MATE1, MATE2K at clinically relevant concentrations.
Transported by	P-gp, BCRP.

References

Unless otherwise stated (see below), information is from:
Exviera® Summary of Product Characteristics, AbbVie Ltd.
Viekira Pak® US Prescribing Information, AbbVie Inc.