# **QSAR** model for human intestinal absorption (v1.0)



#### **ProtoADME**

ProtoADME is a computational (in silico) tool focused on the prediction of endpoints related with the ADME (Absortion, Distribution, Metabolism and Excretion) of chemical substances.

## **Endpoint**

#### Toxicokinetic: human intestinal absorption

The human intestinal absorption of an oral drug is the essential prerequisite for its apparent efficacy. What's more, the close relationship between oral bioavailability and intestinal absorption has also been proven and HIA can be seen an alternative indicator for oral bioavailability to some extent.

### **Metrics**

#### **Training set**

Experimental values	QSAR predictions		
	Negative	Positive	
Negative	130	17	
Positive	25	755	

Val	idatio	n set

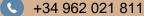
Experimental values	QSAR predictions	
	Negative	Positive
Negative	39	11
Positive	10	252

Parameters	Training	Validation
Accuracy	0.95	0.93
Sensitivity / recall	0.97	0.96
Specificity	0.88	0.78
Precision	0.98	0.96
Negative predictive value	0.84	0.80
F-score	0.97	0.96
Matthews Correlation Coefficient	0.83	0.75
Critical Success Index	0.95	0.92
Area under the ROC	0.93	0.87



ProtoPRED platform allows the easy, fast and user-friendly prediction of different properties of chemical compounds, by proprietary (Q)SAR models.







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