

Table S1. Genbank IDs of novel and existing UGT1A1 and UGT1A6 exon 1 sequences evaluated in this study.

Code name	Scientific Name	Common Name	UGT1A1	Genbank	UGT1A6	Genbank
AcJub	<i>Acinonyx jubatus</i>	Cheetah	New	EF440364	New	EF440401
AilFul	<i>Ailurus fulgens</i>	Lesser (red) panda	-	-	New	EF440400
ArcBin	<i>Arctictis binturong</i>	Binturong	New	EF440362	New	EF440399
ArcFor	<i>Arctocephalus forsteri</i>	Southern fur seal	New	EF440363	-	-
BosTau	<i>Bos taurus</i>	Cattle	Genbank	NM_001105636	Genbank	NM_174762
CalUrs	<i>Callorhinus ursinus</i>	Northern fur seal	New	EF440369	-	-
CanFam	<i>Canis familiaris</i>	Domestic dog	Genbank	AC093453.40	Genbank	NM_1003078
CanRuf	<i>Canis rufus</i>	Red wolf	New	EF440368	New	EF440405
CarAur	<i>Caracal aurata</i> ⁶	African golden cat	New	EF440370	New	EF440406
CarSer	<i>Caracal serval</i> ⁹	Serval	New	EF440378	New	EF440414
ChrBra	<i>Chrysocyon brachyurus</i>	Maned wolf	New	EF440365	New	EF440402
CivCiv	<i>Civettictis civetta</i>	African civet	New	EF440366	New	EF440403
CroCro	<i>Crocuta crocuta</i>	Spotted hyena	New	EF440367	New	EF440404
EquCab	<i>Equus caballus</i>	Horse	-	-	Genbank	A:XM_001495878 B:XM_001495839 C:XM_001495919
FelCat	<i>Felis catus</i>	Domestic cat	Genbank	AF039137	Genbank	AF064085
GalGal	<i>Gallus gallus</i>	Chicken	Genbank	XM_001234327	Genbank	NW_001471728
HerJav	<i>Herpestes javanicus</i>	Indian mongoose	New	EF440383	New	EF440418
HomSap	<i>Homo sapiens</i>	Human	Genbank	M84125	Genbank	M84130
HyaHya	<i>Hyaena hyaena</i>	Striped hyena	New	EF440382	New	EF440417
LeoGeo	<i>Leopardus geoffroyi</i> ¹⁰	Geoffroy's cat	New	EF440376	New	EF440412
LeoTig	<i>Leopardus tigrinus</i> ¹	Tigrina ²	New	EF440380	New	EF440416
LeoWie	<i>Leopardus wiedii</i> ¹²	Margay	New	EF440381	Genbank	AF177922
LynCan	<i>Lynx canadensis</i>	Canada lynx	New	EF440374	New	EF440410
LynRuf	<i>Lynx rufus</i>	Bobcat	New	EF440377	New	EF440413
MacFas	<i>Macaca fascicularis</i>	Crab-eating macaque	Genbank	AF104339	Genbank	AF104337
MacMul	<i>Macaca mulatta</i>	Rhesus macaque	Genbank	AF360121.1	-	-
MirAng	<i>Mirounga angustirostris</i>	Northern elephant seal	New	EF440384	New	EF440419
MusMus	<i>Mus musculus</i>	House mouse	Genbank	AF093878	Genbank	A:U09930 B:AY22720
MusNig	<i>Mustela nigripes</i>	Black-footed ferret	New	HM070401	New	HM070402
MusPut	<i>Mustela putorius furo</i>	Domestic ferret	New	EF440385	Genbank	AF333815
OryCun	<i>Oryctolagus cuniculus</i>	Rabbit	-	-	Genbank	U09030
OviAri	<i>Ovis aries</i>	Sheep	-	-	Genbank	AB018477
PanLeo	<i>Panthera leo</i>	African lion	New	EF440389	New	EF440422
PanOnc	<i>Panthera onca</i>	Jaguar	New	EF440391	New	EF440424
PanPar	<i>Panthera pardus</i>	Leopard	New	EF440392	New	EF440425
PanTig	<i>Panthera tigris</i>	Tiger	New	EF440393	New	EF440426
PanTro	<i>Pan troglodytes</i>	Chimpanzee	Genbank	DQ052657	Genbank	BC019861
PanUnc	<i>Panthera uncia</i>	Snow leopard	New	EF440394	New	EF440427
PapAnu	<i>Papio anubis</i>	Olive baboon	Genbank	NM_001112621	Genbank	NM_001112622
ParBru	<i>Parahyaena brunnea</i>	Brown hyena	New	EF440386	New	EF440420
ParTem	<i>Pardofelis temminckii</i> ⁷	Asiatic golden cat ⁸	New	EF440379	New	EF440415
PhoHoo	<i>Phocarcus hookeri</i>	New Zealand sea lion	New	EF440388	-	-
PhoVit	<i>Phoca vitulina</i>	Harbor seal	New	EF440395	New	EF440428
PonAbe	<i>Pongo abelii</i>	Sumatran orangutan	-	-	Genbank	NM_001132169
PriBen	<i>Prionailurus bengalensis</i> ¹¹	Leopard cat	New	EF440371	New	EF440407
ProCri	<i>Proteles cristatus</i>	Aardwolf	New	EF440387	New	EF440421
ProLot	<i>Procyon lotor</i>	Raccoon	New	EF440390	New	EF440423
PumCo2	<i>Puma concolor coryi</i> ⁵	Florida panther	New	EF440372	New	EF440408
PumCon	<i>Puma concolor</i> ³	Puma ⁴	New	EF440373	New	EF440409
RatNor	<i>Rattus norvegicus</i>	Norway rat	Genbank	D38065	Genbank	D38061
SusScr	<i>Sus scrofa</i>	Pig	-	-	Genbank	XM_001927691
UrsMar	<i>Ursus maritimus</i>	Polar bear	New	EF440396	New	EF440429
UrsThi	<i>Ursus thibetanus</i>	Asiatic black bear	New	EF440397	New	EF440430
VulVul	<i>Vulpes vulpes</i>	Red fox	New	EF440398	New	EF440431

¹Alternate scientific names: *Felis tigrinus*, *Felis tigrina*, *Oncifelis tigrinus*.

²Alternate common names: Little spotted cat, Oncilla, Cunaguaro, Tiger Cat.

³Alternate scientific name: *Felis concolor*.

⁴Alternate common names: Mountain lion, Catamount.

⁵Alternate scientific name: *Felis concolor coryi*.

⁶Alternate scientific name: *Felis aurata*, *Caracal aurata*.

⁷Alternate scientific name: *Catopuma temminckii*.

⁸Alternate common names: Asian Golden Cat and Temminck's Golden Cat

⁹Alternate scientific name: *Leptailurus serval*

¹⁰Alternate scientific name: *Oncifelis geoffroyi*

¹¹Alternate scientific name: *Felis bengalensis*

¹²Alternate scientific name: *Felis wiedii*