

# IMGT/V-QUEST reference directory release 202113-2 (30 March 2021)

1 - Number of IMGT IG and TR genes and alleles per species or taxon

2 - Number of IMGT IG genes and alleles per species or taxon and IMGT group

3 - Number of IMGT TR genes and alleles per species or taxon

## 1 - Number of IMGT IG and TR genes and alleles per species or taxon

Latin name	Species or taxon	IG genes	IG alleles	TR genes	TR alleles	Nb of genes	Nb of alleles
<i>Aotus nancymae</i>	Mas-night-monkey	0	0	65	79	65	79
<i>Macaca mulatta</i>	Rhesus-monkey	372	529	221	284	593	813
<i>Vicugna pacos</i>	alpaca	99	99	0	0	99	99
<i>Bos taurus</i>	bovine	114	145	287	394	401	539
<i>Camelus dromedarius</i>	camel	18	18	56	59	74	77
<i>Felis catus</i>	cat	80	80	178	178	258	258
<i>Ictalurus punctatus</i>	catfish	42	42	0	0	42	42
<i>Gallus gallus</i>	chicken	118	140	0	0	118	140
	chondrichthyes	354	354	0	0	354	354
<i>Gadus morhua</i>	cod	39	76	0	0	39	76
<i>Macaca fascicularis</i>	crab-eating-macaque	135	135	0	0	135	135
<i>Canis lupus familiaris</i>	dog	218	225	170	170	388	395
<i>Tursiops truncatus</i>	dolphin	0	0	91	98	91	98
<i>Mustela putorius furo</i>	ferret	0	0	40	40	40	40



		Number of alleles	0	0	0	0	0	0	0	0	0	0
<i>Macaca mulatta</i>	Rhesus-monkey	Number of genes	111	45	7	112	5	84	8	0	0	372
		Number of alleles	158	49	10	170	5	128	9	0	0	529
<i>Vicugna pacos</i>	alpaca	Number of genes	84	8	7	0	0	0	0	0	0	99
		Number of alleles	84	8	7	0	0	0	0	0	0	99
<i>Bos taurus</i>	bovine	Number of genes	15	23	12	11	5	38	10	0	0	114
		Number of alleles	28	23	18	11	5	50	10	0	0	145
<i>Camelus dromedarius</i>	camel	Number of genes	0	0	0	13	5	0	0	0	0	18
		Number of alleles	0	0	0	13	5	0	0	0	0	18
<i>Felis catus</i>	cat	Number of genes	0	0	0	14	5	49	12	0	0	80
		Number of alleles	0	0	0	14	5	49	12	0	0	80
<i>Ictalurus punctatus</i>	catfish	Number of genes	42	0	0	0	0	0	0	0	0	42
		Number of alleles	42	0	0	0	0	0	0	0	0	42
<i>Gallus gallus</i>	chicken	Number of genes	84	4	1	0	0	28	1	0	0	118
		Number of alleles	91	4	1	0	0	43	1	0	0	140
	chondrichthyes	Number of genes	108	132	114	0	0	0	0	0	0	354
		Number of alleles	108	132	114	0	0	0	0	0	0	354
<i>Gadus morhua</i>	cod	Number of genes	39	0	0	0	0	0	0	0	0	39
		Number of alleles	76	0	0	0	0	0	0	0	0	76
<i>Macaca fascicularis</i>	crab-eating-macaque	Number of genes	88	40	7	0	0	0	0	0	0	135
		Number of alleles	88	40	7	0	0	0	0	0	0	135

<i>Canis lupus familiaris</i>	dog	Number of genes	54	6	6	16	5	122	9	0	0	218
		Number of alleles	54	6	6	23	5	122	9	0	0	225
<i>Tursiops truncatus</i>	dolphin	Number of genes	0	0	0	0	0	0	0	0	0	0
		Number of alleles	0	0	0	0	0	0	0	0	0	0
<i>Mustela putorius furo</i>	ferret	Number of genes	0	0	0	0	0	0	0	0	0	0
		Number of alleles	0	0	0	0	0	0	0	0	0	0
<i>Capra hircus</i>	goat	Number of genes	0	0	0	12	4	35	2	0	0	53
		Number of alleles	0	0	0	12	4	35	2	0	0	53
<i>Equus caballus</i>	horse	Number of genes	46	44	9	26	5	0	0	0	0	130
		Number of alleles	57	46	9	32	7	0	0	0	0	151
<i>Homo sapiens</i>	human	Number of genes	110	37	6	72	5	45	7	0	0	282
		Number of alleles	411	44	13	109	9	100	10	0	0	696
<i>Mus musculus</i>	mouse	Number of genes	271	34	4	128	5	12	7	0	0	461
		Number of alleles	406	41	9	152	10	19	7	0	0	644
	nonhuman-primates	Number of genes	0	0	0	0	0	0	0	0	0	0
		Number of alleles	0	0	0	0	0	0	0	0	0	0
<i>Sus scrofa</i>	pig	Number of genes	15	4	5	15	5	16	3	0	0	63
		Number of alleles	17	5	6	25	9	22	4	0	0	88
<i>Ornithorhynchus anatinus</i>	platypus	Number of genes	45	3	11	0	0	0	0	0	0	59
		Number of alleles	45	3	11	0	0	0	0	0	0	59
<i>Oryctolagus cuniculus</i>	rabbit	Number of genes	49	11	6	66	8	31	4	0	0	175

		Number of alleles	49	11	11	68	19	31	4	0	0	193
<i>Rattus norvegicus</i>	rat	Number of genes	232	35	4	163	7	8	4	0	0	453
		Number of alleles	232	37	4	163	7	8	4	0	0	455
<i>Salmo salar</i>	salmon	Number of genes	136	28	21	0	0	0	0	0	0	185
		Number of alleles	150	28	23	0	0	0	0	0	0	201
<i>Ovis aries</i>	sheep	Number of genes	10	4	6	12	4	69	2	0	0	107
		Number of alleles	10	4	6	12	4	87	2	0	0	125
	teleostei	Number of genes	410	0	0	0	0	0	0	175	0	585
		Number of alleles	470	0	0	0	0	0	0	182	0	652
<i>Oncorhynchus mykiss</i>	trout	Number of genes	81	32	19	0	0	0	0	0	0	132
		Number of alleles	85	34	21	0	0	0	0	0	0	140
<i>Danio rerio</i>	zebrafish	Number of genes	41	7	7	0	0	0	0	11	8	74
		Number of alleles	41	7	7	0	0	0	0	11	8	74

### 3 - Number of IMGT TR genes and alleles per species or taxon

		Locus	TRA		TRB			TRD			TRG		Total
Latin name	Species or taxon	IMGT group	TRAV	TRAJ	TRBV	TRBD	TRBJ	TRDV	TRDD	TRDJ	TRGV	TRGJ	
<i>Aotus nancymaae</i>	Mas-night-monkey	Number of genes	9	17	20	0	10	1	1	2	2	3	65
		Number of alleles	16	19	22	0	12	1	1	2	3	3	79

[illegible]

<i>Gallus gallus</i>	chicken	Number of genes	0	0	0	0	0	0	0	0	0	0	0
		Number of alleles	0	0	0	0	0	0	0	0	0	0	0
	chondrichthyes	Number of genes	0	0	0	0	0	0	0	0	0	0	0
		Number of alleles	0	0	0	0	0	0	0	0	0	0	0
<i>Gadus morhua</i>	cod	Number of genes	0	0	0	0	0	0	0	0	0	0	0
		Number of alleles	0	0	0	0	0	0	0	0	0	0	0
<i>Macaca fascicularis</i>	crab-eating-macaque	Number of genes	0	0	0	0	0	0	0	0	0	0	0
		Number of alleles	0	0	0	0	0	0	0	0	0	0	0
<i>Canis lupus familiaris</i>	dog	Number of genes	41	53	28	2	12	3	2	4	9	16	170
		Number of alleles	41	53	28	2	12	3	2	4	9	16	170
<i>Tursiops truncatus</i>	dolphin	Number of genes	14	60	0	0	0	6	2	4	2	3	91
		Number of alleles	19	60	0	0	0	6	2	4	3	4	98

<i>Mustela putorius furo</i>	ferret	Number of genes	0	0	26	2	12	0	0	0	0	0	40
		Number of alleles	0	0	26	2	12	0	0	0	0	0	40
<i>Capra hircus</i>	goat	Number of genes	0	0	0	0	0	0	0	0	0	0	0
		Number of alleles	0	0	0	0	0	0	0	0	0	0	0
<i>Equus caballus</i>	horse	Number of genes	0	0	0	0	0	0	0	0	0	0	0
		Number of alleles	0	0	0	0	0	0	0	0	0	0	0
<i>Homo sapiens</i>	human	Number of genes	47	61	66	2	14	8	3	4	11	5	216*
		Number of alleles	113	71	147	3	16	21	3	4	19	6	388*
<i>Mus musculus</i>	mouse	Number of genes	118	55	26	2	14	15	2	2	7	4	235*
		Number of alleles	256	66	52	2	19	48	2	3	28	4	441*
	nonhuman-primates	Number of genes	9	17	84	2	23	1	1	2	2	3	144
		Number of alleles	16	19	86	2	27	1	1	2	3	3	160



<i>Sus scrofa</i>	pig	Number of genes	0	0	30	3	18	0	0	0	0	0	51
		Number of alleles	0	0	30	3	18	0	0	0	0	0	51
<i>Ornithorhynchus anatinus</i>	platypus	Number of genes	0	0	0	0	0	0	0	0	0	0	0
		Number of alleles	0	0	0	0	0	0	0	0	0	0	0
<i>Oryctolagus cuniculus</i>	rabbit	Number of genes	56	57	63	2	12	3	2	3	10	2	210
		Number of alleles	56	57	65	2	13	3	2	3	24	2	227
<i>Rattus norvegicus</i>	rat	Number of genes	0	0	0	0	0	0	0	0	0	0	0
		Number of alleles	0	0	0	0	0	0	0	0	0	0	0
<i>Salmo salar</i>	salmon	Number of genes	0	0	0	0	0	0	0	0	0	0	0
		Number of alleles	0	0	0	0	0	0	0	0	0	0	0
<i>Ovis aries</i>	sheep	Number of genes	175	69	72	3	19	65	9	4	0	0	416
		Number of alleles	213	76	72	5	22	90	10	4	0	0	492

	teleostei	Number of genes	0	0	0	0	0	0	0	0	0	0	0
		Number of alleles	0	0	0	0	0	0	0	0	0	0	0
<i>Oncorhynchus mykiss</i>	trout	Number of genes	0	0	45	1	10	0	0	0	0	0	56
		Number of alleles	0	0	45	1	10	0	0	0	0	0	56
<i>Danio rerio</i>	zebrafish	Number of genes	150	123	0	0	0	3	6	2	0	0	281*
		Number of alleles	280	136	0	0	0	6	6	2	0	0	424*

\* TRAV/DV genes and alleles present in both TRAV and in TRDV reference directories are counted only once in total number of TR genes and alleles.