

Table 5.1 Genome sizes, host cell types, and known metabolic pathways hosted by the apicoplast of the apicomplexan parasites discussed in this chapter

	Genome size (Mb) (no. of genes)	Host cell ^a	Fd/FNR ^a	[Fe-S] ^a	DOXP ^a	LipA/B ^a	PDH ^a	FAS II ^a	Heme ^a
<i>Babesia bovis</i>	8.2 (3671)	Erythrocytes	+	+	+	-	-	-	-
<i>Theileria parva</i>	8.35 (4035)	Lymphocytes, erythrocytes	+	+	+	-	-	-	-
<i>Plasmodium falciparum</i>	23.27 (5595)	Erythrocytes, hepatocytes	+	+	+	+	+	+	+
<i>Toxoplasma gondii</i>	63.5 (9239)	All nucleated cells	+	+	+	+	+	+	+
<i>Thalassiosira pseudonana</i> ^b	32.4 (11776)	None (free-living diatom)	+	+	+	+	+	+	+

^a Fd/FNR, ferredoxin redox system; [Fe-S], iron-sulfur cluster biosynthesis; DOXP, isoprenoid biosynthesis; LipA/B, lipoic acid metabolism; PDH, pyruvate dehydrogenase complex; FAS II, fatty acid biosynthesis type II; Heme, heme biosynthesis.

^b The diatom *T. pseudonana*, member of the chromalevolates, is included as an example of a distantly related, free-living organism, possessing a secondary plastid of red algal origin and with an entirely sequenced genome.