

# The European Body Base Colors, simplified

(Guppy-Grundfarben)

Note: The Body Base Color Table MGEX is not applicable!

Genetic/optic factors used:

A = Amelanism/Albino factor

B = Blond factor

G = Gold factor

H = Hellblau (=Light blue) factor

L = Lutino factor

P = Pink factor

R = Red factor

Wild grey	Full dominant	AA	BB	GG	HH	LL	PP	RR
Blond	recessive	AA	bb	GG	HH	LL	PP	RR
Gold	recessive	AA	BB	gg	HH	LL	PP	RR
Blue I	recessive	AA	BB	GG	HH	LL	PP	rr/r1r1
Blue II /Asian Blau ****	recessive	AA	BB	GG	HH	LL	PP	rr/r2r2
Blue III /Hellblau	recessive	AA	BB	GG	hh*	LL	PP	RR*
Albino I /RRE	recessive	aa	BB	GG	HH	LL	PP	RR
Albino II / WRE **	recessive	AA	BB	GG	HH	ll	PP	RR
Pink	recessive	AA	BB	GG	HH	LL	pp	RR
Creme ***	double-recessive	AA	bb	gg	HH	LL	PP	RR
Silver ****	double-recessive	AA	BB	gg	HH	LL	PP	rr
White ****	double-recessive	AA	bb	GG	HH	LL	PP	rr
Albino-White	triple-recessive	AA	BB	gg	HH	LL	PP	rr

\* Sometimes we use the notation r3r3 instead of hh

\*\* Since 1998-2001 there is a debate amongst leading hobby-breeders if this could be a Lutino. Many things speak for that. IKGH has decided to register this color form as "Lutino" in the international exhibition-standard IHS. The term Lutino has not yet been confirmed, because of lack of scientific biochemical evidence. It behaves as a body-base color and resembles birds or mammals described as "Lutino". The Albino II guppy was considered to be axantistic, but this has been disproven by microscopic studies.

\*\*\* Different types can occur, eye colors red or dark

\*\*\*\* Some very small amounts of xantofores (red and/or yellow) have been discovered

**Note: This table may have to be revised, due to recent research. Stand: Feb. 2011.**

## Comments:

Table is somewhat misleading. Please read the individual descriptions of these colors.

All recessive Body Base colors are naturally occurring mutations, except for Pink. Albino II or Lutino is also sometimes called "Yellow" which is a descriptive name, not acknowledged by all breeders.

All double-recessive Body Base colors including Pink, are the product of crossings of other Body Base colors and can be re-created.

All triple-recessive Base Body colors are the product of crossings of other Base Body colors, and can be re-created. Only one is shown here, the others never became very popular.

§	All European dominant and mono-recessive Base Body color forms have dark eyes
§	European Albino1 have dark red eyes, similar to animals described as "Sepia" or "Falb"
§	European Albino2 or Lutino have light red eyes, or similar to animals described as "Lutino"
§	European Creme = crossing product of Blond and Gold (former Bronze), mostly dark eyes
§	European Silver = crossing product of Gold (former Bronze) and Blue1 or Blue2, dark eyes
§	European White = crossing product of Blond and Blue1 or Blue2, dark eyes
§	European Pink = occurred after numerous crossings, involving mostly wild grey specimens, dark eyes
§	European Albino-White = crossing product of Albino, Blond and Blue. Always dark red eyes, eyes are similar to animals described as "Sepia" or "Falb", almost no color

In Europe, we assume all fish can show iridophores and the Base Body Color has no impact on display of iridescent color pigments of Guppy. This has been one of the most popular traits of high breeding in Guppy. There are iridescent strains of every Base Body Color. Some are more unusual than others. No difficulty has been reported, on adding this trait on any Base Body color. Only difficulty reported, has been that swords come persistently, also in other lines like deltas. This is why this color is not considered Base Body color. See rules below. This may have to be investigated further by European hobbyists.

In Europe, we do not distinguish between red and yellow pigments. We consider them basically the same. We classify erythrocytes as red xanthocytes. Considering Body Base colors, xanthocytes are differentiated only in manner of quantity, not quality. This has to be investigated further in Europe.

In Europe, blue and green pigments are considered to be secondary sex colors. These must not be confused with the European Body Base colors Blue1, Blue2 or Blue3.

In Europe the qualifications of a Base Body color is otherwise the same, as in Russia. We have the following rules:

### Body Base colors

- \* They are inherited by the homologous autosomes, and not by the heterologous gonosomes
- \* They are expressed in the same way by both sexes
- \* They have never, which is the case of some top-colors, any effect on the form of the fins
- \* There is never any "crossing-over", as can be seen with top-colors.

In addition: None of the Base Body colors can be affected or accentuated by food additives.

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