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| **Species** | **Finding** | **Authors, Year** |
| Alanine | Inc in obese adults | (Newgard et al., 2009) |
| Inc. in T2D adults | (Wang-Sattler et al., 2012)  (Xu et al., 2013)  (Villarreal-Pérez et al., 2014) |
| Inc. incident T2D adults | (Palmer et al., 2015)  (Qiu et al., 2016) |
| Inc. in incident T2D European and S. Asian adult males | (Tillin et al., 2015) |
| Alpha-aminoadipate | Inc. in incident T2D adults | (Wang et al., 2013) |
| Aspartate or Asparagine | Inc. in obese adults | (Newgard et al., 2009) |
| Dec. in incident T2D adults | (Palmer et al., 2015) |
| Cysteine | Dec. in T2D adults | (Suhre et al., 2010) |
| Cystine | Dec. in obese adults | (Jeevanandam, Ramias & Schiller, 1991) |
| Inc. in obese, T2D adult females | (Fiehn et al., 2010) |
| Glutamate or Glutamine | Inc in obese adults | (Newgard et al., 2009) |
| Inc. in incident T2D adults | (Palmer et al., 2015) |
| Glycine | Dec. in obese adults | (Felig, Marliss & Cahill, 1969)  (Newgard et al., 2009) |
| Dec. in T2D adults | (Wang-Sattler et al., 2012) |
| Dec. in obese T2D adult females | (Fiehn et al., 2010) |
| Dec. in incident T2D | (Wang-Sattler et al., 2012)  (Floegel et al., 2014)  (Palmer et al., 2015)  (Yu et al., 2016) |
| Dec. in incident T2D European adult males | (Tillin et al., 2015) |
| Isoleucine | Inc. in obese adults | (Felig, Marliss & Cahill, 1969)  (Jeevanandam, Ramias & Schiller, 1991) |
| Inc. in T2D adults | (Suhre et al., 2010)  (Wang-Sattler et al., 2012)  (Xu et al., 2013) |
| Inc. in T2D adult females | (Menni et al., 2013) |
| Inc. in incident T2D adults | (Wang et al., 2011)  (Yamakado et al., 2015) |
| Inc. in incident T2D European and S. Asian adult males | (Tillin et al., 2015) |
| Leucine | Inc. in obese adults | (Felig, Marliss & Cahill, 1969)  (Jeevanandam, Ramias & Schiller, 1991)  (Kim et al., 2010)  (Mangge et al., 2016) |
| Inc. in T2D adults | (Suhre et al., 2010)  (Xu et al., 2013)  (Villarreal-Pérez et al., 2014) |
| Inc. in T2D adult females | (Menni et al., 2013) |
| Inc. in incident T2D adults | (Wang et al., 2011)  (Yamakado et al., 2015) |
| Inc. in incident T2D European and S. Asian adult males | (Tillin et al., 2015) |
| Lysine | Dec. in obese T2D adult females | (Fiehn et al., 2010) |
| Palmitoylcarnitine (C16) | Inc. in obese adults | (Mihalik et al., 2010) |
| Inc. in T2D adults | (Mihalik et al., 2010) |
| Inc. in incident T2D adults | (Qiu et al., 2016)  (Sun et al., 2016) |
| Phenylalanine | Inc. in obese adults | (Felig, Marliss & Cahill, 1969)  (Newgard et al., 2009) |
| Inc. in T2D adults | (Xu et al., 2013) |
| Inc. in incident T2D adults | (Wang et al., 2011)  (Floegel et al., 2014)  (Yamakado et al., 2015)  (Palmer et al., 2015)  (Qiu et al., 2016) |
| Inc. in incident T2D S. Asian adult males | (Tillin et al., 2015) |
| Propionylcarnitine (C3) | Inc. in obese adults | (Newgard et al., 2009)  (Kim et al., 2010) |
| Inc. in T2D adults | (Mihalik et al., 2010) |
| Inc. in incident T2D adults | (Sun et al., 2016) |
| Tryptophan | Dec. in obese adults | (Jeevanandam, Ramias & Schiller, 1991)  (Breum et al., 2003) |
| Inc. in obese adults | (Kim et al., 2010) |
| Tryptophan/LNAA | Dec. in obese adults | (Breum et al., 2003) |
| Dec. in obese, T2D adults | (Ashley et al., 1985) |
| Tyrosine | Inc. in obese adults | (Felig, Marliss & Cahill, 1969)  (Newgard et al., 2009)  (Kim et al., 2010) |
| Inc. in T2D adults | (Villarreal-Pérez et al., 2014) |
| Inc. in incident T2D adults | (Wang et al., 2011)  (Yamakado et al., 2015)  (Qiu et al., 2016) |
| Inc. in incident T2D European and S. Asian adult males | (Tillin et al., 2015) |
| Valine | Inc. in obese adults | (Felig, Marliss & Cahill, 1969)  (Jeevanandam, Ramias & Schiller, 1991)  (Newgard et al., 2009)  (Kim et al., 2010) |
| Inc. in T2D adults | (Suhre et al., 2010)  (Xu et al., 2013)  (Villarreal-Pérez et al., 2014) |
| Dec. in T2D adult females | (Menni et al., 2013) |
| Inc. in incident T2D adults | (Wang et al., 2011)  (Palmer et al., 2015)  (Yamakado et al., 2015)  (Yu et al., 2016) |
| Inc. in incident T2D European and S. Asian adult males | (Tillin et al., 2015) |