

Methodological characteristics of included studies (maternal serum adiponectin)			
Year; author	Study type	Inclusion criteria	Exclusion criteria
Visentin et al, 2014 [15]	Retrospective cohort	<ul style="list-style-type: none"> <li>• Singleton pregnancies</li> <li>• FGR: EFW &lt;10<sup>TH</sup> centile + UA Pulsatility Index &gt; 2 SD</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple pregnancies</li> <li>• Evidence of chromosomal abnormalities or fetal anatomic defects</li> <li>• Consent not given</li> <li>• Pregnancies complicated by maternal history of cardiovascular disease or endocrine disorder</li> <li>• Clinical chorioamnionitis</li> <li>• Consumption of alcohol, smoke, nicotine, or any medication such as ritodrine and corticosteroids (except for fetal lung maturation)</li> <li>• Amniotic fluid disorders</li> <li>• Placental abnormalities</li> </ul>
Aydin et al, 2015 [20]	Prospective case control	<ul style="list-style-type: none"> <li>• IUGR: BW or length &lt;10<sup>th</sup> percentile with pathological fetal growth restriction</li> <li>• Maternal age 18-40</li> <li>• Singleton pregnancy</li> <li>• Gestational age 36-40</li> <li>• IUGR diagnosed in second or third trimester</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• BW&gt; 10<sup>th</sup> percentile</li> <li>• Multiple pregnancies</li> <li>• Systemic illness (gestational diabetes, preeclampsia, eclampsia, chronic hypertension, vascular diseases, thrombophilia)</li> <li>• Infectious diseases</li> <li>• Uterine malformation</li> <li>• Smoking</li> <li>• Fetuses with congenital malformation or chromosomal anomaly</li> <li>• Consent not given</li> </ul>
Kyriakakou et al, 2008 [38]	Prospective cohort	<ul style="list-style-type: none"> <li>• IUGR: BW&lt;3rd centile</li> <li>• Full term singleton infants</li> </ul>	<ul style="list-style-type: none"> <li>• Consent not given</li> </ul>
Wang et al, 2010 [39]	Prospective cohort	<ul style="list-style-type: none"> <li>• Singleton pregnancies</li> <li>• No obstetrical, maternal, or fetal complications</li> <li>• Normal plasma glucose concentration in the first trimester</li> <li>• Normal OGTT in the third trimester and</li> <li>• Full term 37–42 weeks</li> </ul>	<ul style="list-style-type: none"> <li>• Unreliable gestational age, pregnancies after ovulation induction or in vitro fertilisation</li> <li>• Pregnancy- induced hypertension,</li> <li>• Pre-gestational or gestational diabetes mellitus</li> <li>• previous chronic diseases (e.g. epilepsy, renal insufficiency and heart disease)</li> <li>• Medical treatment, especially glucocorticoids.</li> </ul>

**Table S3.** The methodological characteristics of the included studies that investigated adiponectin. Abbreviations: **FGR**: Fetal Growth Restriction, **IUGR**: Intrauterine Growth Restriction, **EFW**: Estimated Fetal Weight, **BW**: Birth Weight, **UA**: Umbilical Artery, **SD**: Standard , **OGTT**: Oral Glucose Tolerance test